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ABSTRACT

This report contains a proposed framework for the subject matter of vocational education that is presented in two sections. Section 1 describes concepts central to the idea and ideal of vocational education. The analysis and interpretation of each concept are summarized as a set of propositions concerning the meaning of vocational education. These concepts include the educated person, education, vocation(al), vocational development, and vocational education. Section 2 presents the proposed conceptual framework for the subject matter of vocational education. It addresses each of five dimensions of the meaning of vocational education: focus, uniqueness, content, method, and structure. A proposal is made that the content of vocational education be drawn from the personal and practical problems faced by people in striving for a more desirable social state of affairs in the workplace and family and the cognitive processes need to resolve these problems. A framework is presented that describes the desired state of affairs in the family and in the workplace. Issues in describing the problem of vocational life are discussed, and the problem areas of vocational life are listed. A table sets forth exemplary problems of vocational life, including the problem area, description, and illustration. The discussion covers moving from problem areas and problems to content of learning. The section concludes with questions and activities to stimulate and clarify the proposed framework. (107 references) (YLB)

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A FRAMEWORK FOR THE SUBJECT MATTER OF VOCATIONAL EDUCATION

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INTRODUCTION

Vocational education as a professional field is in need of a more intellectually convincing framework for its subject matter. Since the introduction of vocational education as a curricular category in the nation's public schools at the beginning of the twentieth century, it has taken its basic direction and substance from federal legislation. Although the continuous support of federal legislation is applauded as an indication of strong and committed public interest, the legislative arena does not provide a sustained and disciplined context for organizing the subject matter of a maturing professional field. The purpose of this report is to initiate an intellectual conversation about the subject matter of vocational education. The goal is to develop a conceptual framework that will guide the decisions for the aims, curriculum, instruction, and assessment of vocational education.

The question of the subject matter of vocational education should be viewed as a practical one. Practical here refers to questions required for their resolution and attention to aims, content, alternatives, and consequences. The resolution requires judgment and action that will have real effects on the stakeholders in the vocational education enterprise. A conceptual framework for the subject matter of vocational education should identify and organize assumptions and propositions to guide vocational education through the array of problems it faces over time. The framework should assist professional vocational educators to understand the problems at hand and anticipated, to draw helpful insights from relevant disciplines, to practice with the guidance of ethical ideals, and to take actions that are intellectually coherent and morally justified.

The array of practical problems at hand and anticipated relating to the subject matter of vocational education include (1) the relationship of vocational education to the ideal of an educated person; (2) the relationship of vocational education to other curricular categories (i.e., English, social studies, mathematics, science, arts); (3) the appropriate vocational education for various episodes or phases in the life long process of vocational development; (4) the appropriate vocational education for a wide diversity of learners; (5) the social status of vocational education and different kinds of vocational responsibilities; and (6) attributes of being modern and up-to-date in the context of current social and economic changes. A useful conceptual framework for vocational education must prove itself by assisting professionals to resolve these problems in their

everyday manifestations justly and with a sense of making progress toward ultimate goals.

In the initial phase of this project which focused on the foundations of vocational education (Copa & Tebbenhoff, 1990), a series of specific questions were identified to facilitate clarifying the meaning and subject matter of vocational education. Later in this report these questions will form the headings for sections of a proposal describing the propositions underlying the subject matter of vocational education. The questions are as follows:

1. What is the focus of vocational education?

2. How is vocational education unique and how is it the same as other educational subjects?

3. What is the content of vocational education?

4. What are the methods of vocational education?

Analysis of discussions in the initial phase of the project in an interdisciplinary group of scholars regarding the subject matter of vocational education resulted in the following guidelines which were addressed in the present phase of the project (Copa & Tebbenhoff, 1990):

1. Questioning should start from the practical problems faced in the vocational aspects of life and back into the needed foundational content from academic disciplines rather than vice versa. This keeps the content relevant, and the learning experience motivates students. The practical problems might be clustered into more general, recurring, continuing concerns of individuals as they experience and manage their vocational lives. Problem areas might then be strategically selected to gain the needed breadth which characterizes an "educated person."

2. Questioning should confront the basic moral issues relating to the social status of vocational education. Two of these basic issues are the social and economic stratification that may be occurring in schools through explicit or implicit curricular tracking of students and the structure of our society (e.g., as revealed in

organization charts, job descriptions, interrelationships between organizations) which may need to be confronted if stratification is to be eliminated.

3. Questioning should seek to enhance certain characteristics of vocational education to include (1) further mainstreaming of vocational education as an integral part of general education; (2) building on vocational education's comparative advantage in certain learner outcomes and instructional methods such as cooperation, application, and experiential learning; (3) strengthening vocational education's role as "change maker" in improving the conditions of vocational life; (4) using vocational education to provide a more complete general education through study of the vocational aspects of life (i.e., work and family responsibilities); and (5) ensuring that vocational education addresses the interpretive and emancipative aspects of vocational life as well as the technical aspects.

While one part of this project pursued the subject matter of vocational education directly, another, under the direction of Robert Beck, probed the relationship between vocational education and general education. Beck began by attempting to ascertain the relation of general and vocational education in another culture (polytechnical education as practiced in the Soviet Union) (1990a) and the meaning of general education (1990b). The analysis broadened to include a variety of rich ideas and strategies for the interaction of vocational and general education to their mutual benefit (1991). The separate findings of and relationship between the two efforts comprising this project have made an important contribution to the proposals made in this report.

Another major phase of this project was an extensive review of curricular research in vocational education which has been published separately (Copa & Bentley, in press). The review is critical to understanding the history and development of the subject matter of vocational education and serves as a base from which to entertain feasible improvements.

The proposal concerning a framework for the subject matter of vocational education that follows is presented in two sections. Section one describes concepts central to the idea and ideal of vocational education. The analysis and interpretation of each central concept are summarized as a set of propositions concerning the meaning of vocational education. Section two presents the proposed conceptual framework for the subject matter of vocational education. This section concludes with questions to guide

further dialogue among the stakeholders in vocational education about the proposed subject matter framework and activities that would add substance to the framework making it possible to see its consequences with greater clarity.

CONCEPTS CENTRAL TO VOCATIONAL EDUCATION

To proceed efficiently with a discussion about a framework for the subject matter of vocational education, it seems wise first to define important concepts which that will frequently be encountered. These concepts include (1) educated person, (2) education, (3) vocation(al), (4) vocational development, and, finally, (5) vocational education. The following is a brief exploration of the meaning given to these concepts for the purposes of this report.

Before moving into an analysis of the central concepts, it may be helpful to clarify what the concepts are, what the aim of conceptual analysis is, and how it may proceed. Concepts represent or name ideas (i.e., fish, chair, teacher, home, small) as pointed out by Wilson (1963) in his book *Thinking with Concepts*. Questions about concepts are questions of meaning or, "What counts as _____?" Generally it is a mistake to assume that concepts have only one meaning since that meaning often depends on one's point of view or circumstances. Even a concept as simple as a chair can have several meanings depending on whether individuals are adults or children or whether they are in their homes or out camping in the wilderness.

We want the words that we use to name concepts to serve that purpose as effectively and efficiently as possible and to serve the purposes of our thinking and communications. In doing conceptual analysis we are obliging ourselves to ask questions, to make distinctions, to be very self-conscious about the words we often use without thinking much about their meaning and significance. As Wilson (1963) notes, when one performs conceptual analysis, one gets "the impression of a tangled ball of string which has to be carefully unwound, of a great pile of different objects to be sorted, or of a large area of country which we have to map" (p. 15).

Soltis (1978), in his book *An Introduction to the Analysis of Educational Concepts*, has proposed three different strategies for approaching conceptual analysis that can be used singly or in combination. The approaches give a more concrete idea of the

actions that are often involved in doing conceptual analysis. The approaches are (1) generic-type analysis—seeks the necessary features, characteristics, or properties of something (usually selects standard or model cases, draws out the necessary features, and tests the features with counter-examples); (2) differential-type analysis—seeks the basic different meanings of something, thereby illuminating its full conceptual topography (usually searches for standard uses of the concept, categorizes the uses, and identifies the characteristics of each category of use); and (3) conditions-type analysis—seeks the contextual conditions for something present (usually searches for the necessary conditions for something to happen or be present and tests for necessary and sufficient conditions). The point of these analyses is to clarify the issues in searching for a perspective on meaning which will be helpful for particular purposes such as theorizing or practicing.

As we search for a perspective on the meaning of a concept that will be helpful for particular purposes, it is clear that there may be several different types of meanings or definitions. In *The Language of Education*, Scheffler (1960) discusses three types of definitions (1) stipulative—a definition created or provided by the author to be used consistently in a discussion in order to keep things straight; (2) descriptive—various definitions of a term typically found in a dictionary; (3) programmatic—a definition that prescribes implicitly or explicitly how things should be. Often these types of definitions do not exist in pure form but, rather, in combination.

The purpose of the report's following section is to increase awareness of the descriptive meanings of important concepts involved in thinking about the subject matter of vocational education in order to form a more programmatic definition of vocational education—that is, one which suggests the best program of vocational education in terms of valued ends and means. Because this involves critical and careful judgments on questions of values, the discussion of each concept attempts to go beyond the superficial. The discussion may seem tentative because no one has *the* answer to the questions being asked. The analysis may on the surface appear to be much fuss about nothing, but we hope deeper reflection will suggest that it is about ideas that are very important to vocational education. It is tempting to conceptually analyze each word related to vocational education, but that is neither feasible nor relevant here—only central (and sometimes ignored) underlying concepts are analyzed. The reader must enter the debate about the meaning of these terms—to be responsive to what is presented and see the need to take on the conceptual problem being addressed. There are no complete answers to the

nature of the meaning of the concepts selected for analysis here. What is presented are logical sketches that we hope have some merit. Certainly, this should not be taken as the last word on these concepts—there is sufficient arbitrariness in the analysis and even the concepts selected for analysis to merit continuing this conceptual conversation.

Educated Person

Thinking about the subject matter of vocational education quickly leads to a consideration of what it takes to be satisfied with and satisfactory at the vocational aspects of life. In the context of educational matters, this thinking leads eventually to what it means to be educated—that is, capable of managing and conducting one's life successfully, including the vocational aspects.

Desired Characteristics of Educated Persons

R. S. Peters (1973) delineated the desired characteristics of an educated person. First, he suggests that educated persons must be capable of pursuing an activity (i.e., scientific study, cooking, typing) "for what there is in it as distinct from what it may lead on to or bring about"—they experience inherent "delight" in the activity. Second, educated persons, besides being skilled, must "possess some body of knowledge and some kind of conceptual scheme to raise this above the level of a collection of disjointed facts"—they must have some "understanding of the 'reason why' of things." Without this understanding, they are likely to rely on rules of thumb and have difficulty dealing with exceptions and novel situations. Third, educated persons cannot be narrowly specialized—they must be able to see a connection in their activities to a coherent pattern of life. According to Peters (1973), "we use the phrases 'trained in' and 'trained for' when we wish to talk about utilitarian or specialized pursuits. We do not speak of a person being educated *in*, or *for*, or *at* anything in particular. This does not mean, of course, that an educated man must not be trained in something. It only rules out the possibility of his being *just* trained" (p. 19). Fourth, the knowledge and understanding of educated persons must "permeate [their] way of looking at things"—it must transform their total outlook. This outlook requires an attitude of commitment to the value of knowing and the consistency of thought and action, and an attitude of caring about the standards used in deciding what is known. To Peters (1973), "To be educated is not to have arrived, it is to travel with a different view. What is required is not feverish preparation for something

that lies ahead, but to work with precision, passion, and taste at worthwhile things that lie to hand" (p. 20).

These characteristics of educated persons are amplified by Maxine Greene (1984) when she describes an expanded notion of the learning outcomes of excellence in education. Rather than focus on being educated as meaning performance in mathematics, science, social studies, and English, as is too often implied in discussions of education, she recommends that educated refer to quality of mind, manner of addressing a project, and way of dealing with situations. We would then need to talk about educated persons in terms of capabilities such as problem solving, integrity, autonomy, fidelity, imagination, adventurousness, self-reflection, cooperativeness, moral sensitivity, persistence, and strength of will (see Greene, 1988, for a discussion of several of these characteristics in the context of education and freedom).

Further, Greene (1984) offers the ideal that an expanded concept of educational excellence would mean that educated persons have the capacity (as noted above) *and* be able to express the capacity. She asks, if it was required that being educated had to be demonstrated, could it be learned if there was no space for encounters with the shapes, sounds, and colors of real life? If there was no space for encounters with what it means to live in a world with many different people? If there was no space for people to find their own voices, to speak for themselves? If educational excellence referred to multiple capacities and their demonstration, it would encourage educators to celebrate more energetically the diversity of young people's voices, perspectives, and talents.

Greene's expectations for the characteristics of educated persons and an educational process up to the task are made more operational by Gardner (1983) and Walters and Gardner (1986) in their work on multiple intelligence, Sternberg and Wagner (1986) in work on practical intelligence, and Scribner's (1986) idea of "mind in action," problem solving, and practical thought. Gardner has described seven types of intelligence: logical-mathematical, musical, bodily-kinesthetic, linguistic, spacial, interpersonal, and intrapersonal. He points out that everyday cultural roles require a combination of these intelligences. Sternberg and Wagner discuss the construct of practical intelligence (sometimes contrasted to academic intelligence) referring to "the intellectual competencies required for handling worldly affairs" (p. 361) or as attributed to Frederiksen (as cited in Sternberg & Wagner) as "one's cognitive responses to almost everything that happens outside of school" (p. 362). They characterize typical problems

presented in school as (1) well defined, (2) having one correct solution and one method to get the solution, (3) abstracted from ordinary experience and intrinsic interest, and (4) having all information available about the problem from the start. By contrast to the intellectual skills required to solve learning problems typical in the school setting, Sternberg and Wagner describe a practically intelligent individual as "one who is able to solve the ill-defined problems that arise naturally in daily life, for which there may be multiple solutions and multiple ways of obtaining them" (pp. 362-363). Practical intelligence is characterized as practical know-how and draws extensively on tacit knowledge.

Scribner (1986) contrasts the practical to the theoretical, referring to Aristotle's classification of the uses of knowledge, with practical thinking being mind in action. Practical thinking refers to "thinking that is embedded in the larger purposive activities of daily life and that functions to achieve the goals of those activities" (p. 15). The purposefulness and contextual embeddedness of practical thinking is explained as follows:

> Activity goals may involve mental accomplishments (deciding on the best in a supermarket) or manual accomplishments (repairing an engine) but, whatever their nature, practical thinking is instrumental to their achievement. So conceived—as embedded and instrumental—practical thinking stands in contrast to the type of thinking involved in performance of isolated mental tasks undertaken as ends in themselves. (p. 15)

Using an analysis of behaviors in four different occupational settings, Scribner (1986) proposes the following characteristics of practical thinking: (1) it involves problem formation as well as solutions; (2) it is marked by flexibility (in solving the same problem in different ways depending on the occasion); (3) it incorporates the features of task environment into the problem-solving system (the interplay of context and solution); (4) it seeks modes of solution that are most economical or require least effort; (5) it involves the acquisition and use of specific knowledge (along with thinking process skills). Echoing Greene concerning what one assumes about educated persons, Scribner writes, "practical thinking emerges as an integral and dynamic system organized by both factors in the world and subjective goals and knowledge. Its complexity, the 'challenge of the ordinary,' arises from this property—that it is simultaneously adaptive to ever-changing conditions in the world and to the purpose, values, and knowledge of the person and the social group" (p. 20).

Reaching Human Potential

Discussions of educated persons and education must also address the concept of human potential with educated persons being those who reach full potential. Scheffler (1985), as part of the Project on Human Potential undertaken at the Harvard Graduate School of Education, has probed the meaning of human potential as an important educational concept. He starts his analysis by identifying and critiquing a series of myths about human potential that have confused the thinking about the nature of educated persons and educational planning:

1. *The myth of (individuals having) fixed potentials.*
   (Rather, Scheffler notes, "both what people potentially are and what they in fact turn out to be are contingent, to an incalculable extent, on human intention, both individual and social, bounded only by available resources and the limits of ingenuity" (p. 11); a person's potential is not some enduring act of possibilities simply to be found and then acted upon).

2. *The myth of harmonious potentials.*
   (Realization of some potentials conflict with the realization of others; choices must therefore be made depending on one's values; it is really not possible to "be all that one can be" because of these choices; and education cannot be reduced to the mere technology of responding to the questions of what potentials does a student have and how are they most efficiently realized) (p. 14).

3. *The myth of uniformly valuable potentials.*
   (Potential can be evil as well as good) (p. 15).

Scheffler (1985) aptly concludes this critique with a description of the complexity of the meaning of human potential and seeking the goals of educated persons:

> Hedged about by constraints on available options, by limitations of capability, and by the uncertainty of even the best-available foresight, human choice proceeds nevertheless to stake out paths in the jungle of possibilities, building habitations of varied structure and adornment to house its loves and works. (p. 33)

The restructured framework for thinking about human potential proposed by Scheffler (1985) describes potential as capacity, propensity, and capability. The notion of potential as capacity refers to the idea of capacity to become. For example, Susan has the capacity to become an auto mechanic—she can learn how to become or develop into an

auto mechanic. The contrast is between the capacity of being an auto mechanic and the capacity to learn to become an auto mechanic. Capacity as an aspect of potential refers to the capacity to acquire a specific characteristic. With this meaning of potential, identifying educated persons does *not* mean searching for enduring characteristics or essences but, rather, investigating and experimenting with the capacity for acquiring various characteristics. This investigation, in turn, usually leads to the study of factors that impede this acquisition. In Scheffler's words,

> The study of potential (as capacity to become) is, in effect, the study of conditions that block learning, prevent development, necessitate failure to attain some designated outcome. It is also the study of how such preventive circumstances may be instituted or themselves prevented in particular cases. (p. 49)

Potential as propensity refers to the propensity to become persons with certain characteristics. It describes Susan's propensity to become an auto mechanic. Potential with this meaning directs our attention to the person's motivations and the intermediate factors which must be in place for the characteristics to be acquired. Potential is a conditional statement of an if-then formulation, with the necessary conditions to bring about the characteristics stated explicitly. Conditions may be linked sequentially, thus providing the basis for using the psychological concept of development. The cooperation of the individual and the context or environment is very important to realizing potential as the propensity to become.

The third notion about potential is the capability to become which refers to Susan's capability to do auto mechanic work successfully. The focus is on skills that will with a fair degree of confidence bring about the outcome or characteristic intended. Persons are empowered to demonstrate the outcome if they choose, and the environment is generally supportive. Empowering results from acquiring/learning what is needed to demonstrate the outcome effectively. Attention is on placing the means of learning within the grasp of the learner.

Scheffler (1985) notes that the three notions of potential are compatible and "provide mutually supplementary analytic schemata for clarifying three important aspects of education and growth, viz. impediments to the acquisition of various features, conditions under which such acquisitions may develop and circumstances in which agents may be empowered to develop, as they choose. . . . Or, finally, the enabling of learning, the development of learning, and self-development, or the empowering of learning" (p.

65). In concluding his discussion of human potential as a goal to be realized in educated persons, Scheffler sounds a very telling cautionary note for educators:

> When we speak of potential . . . we must avoid falling into the habit of thinking with the outsider, and neglecting the insider's vantage. A danger of what we may call the development frame of mind is the presumption that the developer's assessment is the critical one, that it is his state of knowledge, symbolism, and values that determine the potential of the subject. (p. 66)

In summary, the ideal of the educated person is a challenging goal for education and, specifically in the context of this report, for vocational education. The propositions about educated persons which seem to stand out in the above discussion of selected references from the extensive literature on the topic are as follows:

- Educated persons are always involved in things that give meaning and zest to living.
- Educated persons have a broad understanding of a phenomenon and its connection to a coherent pattern of life as well as being skilled—they are able to address why as well as how.
- Educated persons have a way of looking at things that involves commitment, consistency, and caring regarding standards and actions that contribute to a good and just life and society.
- Educated persons have a desired series of capacities and the propensity and capability to demonstrate them when needed.
- Educated persons have practical intelligence which enables them to effectively handle the complexity and challenge of everyday life requiring clear attention to aims, context, and consequences of action.
- Educated persons exploit their human potential as evolving capacity, propensity, and capability in relation to desired social conditions and values.

Education

Given some idea of the desired characteristics of educated persons, what then are the necessary characteristics of education as a process designed to prepare educated persons. Consideration of the meaning of education will first draw on the insights of philosophers such as Plato, Locke, and Kant and then will focus more specifically on the ideas of philosophers who have focused directly on education (i.e., Dewey, Peters, Passmore). Last, the particular perspective of education as development described by Kohlberg will be examined.

Some Broad Perspectives on Meaning of Education

Scheffler (1981) has pulled together the thoughts of three broad philosophical perspectives as criteria for assessing what education is. Each perspective by itself seems to add an important but incomplete insight into the concept of education. The first perspective, entitled the "impression model," is associated with the writing of John Locke. Essentially, this model characterizes the mind as "sifting and storing the external impressions to which it is receptive" and learning as "an accumulation in the learner of basic elements fed in from without, organized and processed in standard ways, but, in any event, not generated by the learner himself" (p. 136). The learner is simply filled up with knowledge built up from the past experiences of others. The strength of this model is the legitimation of knowledge through experience, first of others and later of the learner. Limitations of this model concern (1) its failure to address developing the mental powers (i.e., observation, recollection, thinking) that are to process knowledge, (2) its inadequate conceptualization of knowledge (i.e., knowledge is embodied in language, knowledge involves theory), (3) its failure to address the use or application of stored knowledge, and (4) its failure to provide for radical innovation by the learner (i.e., new theories, new applications). Education, defined only by the impression model, "sets theoretical limits to the power and control of the teacher; moreover, it is where his control ends that his (the teacher's) fondest hopes for education begin" (p. 139).

Scheffler (1981) labels the second perspective the "insight model," drawn from Plato and described by St. Augustine. For this model, education does not involve the transfer of bits of knowledge; rather, knowledge itself is conceived as a matter of vision and vision cannot be subdivided into little bits for transfer—it can only be stimulated or prompted. As such, vision "defines and organizes particular experiences, and points up their significance. It is vision, or insight into meaning, which makes the crucial

difference between simply storing and reproducing learned sentences, on the one hand, and understanding their basis and application, on the other" (p. 139). The complementary relationship of the impression and insight models can be seen in their contrast: the impression model stresses storing bits of knowledge, the insight model stresses acquisition of understanding the whole; the impression model stresses systematic accumulation of knowledge from the public treasury, the insight model stresses development of new knowledge and its use; the impression model places most attention on feeding in knowledge from the outside, the insight model focuses attention on efforts by the learners to inspect their knowledge. The learner is responsible for evaluating what is to be considered knowledge by personal engagement with reality. The limitations of the insight model are (1) inadequate consideration of principled deliberation as a condition of knowing (i.e., as matters get very complicated, a simple vision or insight into reality is overly simple and impossible) and (2) it is overly cognitive (i.e., use of knowledge requires proper techniques of execution and appeal to character—the accepted rules of conduct). In Scheffler's words, these limitations of the insight model are very serious, "for the concept of principles and the concept of reasons together underlie not only the notions of rational deliberation and critical judgment, but also the notions of rational and moral conduct" (p. 143).

Scheffler (1981) calls the third perspective on education the "rule model." This model is drawn from Kant with his emphasis on reason, reason being dependent on general rules and principles. Using reason involves being consistent and taking the needed time to be thorough in analysis in making judgment. Reason has relevance to both cognitive and moral issues; in the former it requires attention to evidence, in the latter attention to justice. In both cases one is judging issues on the basis of principles that have been freely accepted as binding on oneself—regardless of whether it is to one's advantage in a particular instance. To act in this way is to be rational; to freely choose the accepted principles and subsequently to be able to act accordingly is an essential aspect of human dignity. Scheffler suggests that the task of education is to "develop character in the broadest sense, that is, principled thought and action, in which the dignity of man is manifest" (p. 144). The rule model of education requires the same transfer of knowledge described in the impression model, but this knowledge must be filtered through a set of principles. Learners must give reasons for their beliefs and these reasons, as in the insight model, must be applicable to the situation in question; there must be a capacity to construct and evaluate new arguments—to understand and to innovate. An important aspect of this conception of education is attention to the autonomy of the

learners—their right to seek reasons to support their beliefs and their responsibility to deal with these reasons in a principled way. The learner always has the freedom to reject as well as to accept what is taught but only on the basis of principled reasons. A major limitation or challenge of the rule model is that the nature of the reasoning process is extremely complex (i.e., witness the methods of science, history, law, politics) and the contents of its principles are constantly evolving.

In summary, each of the models is purported to add a dimension to the meaning of education. First, the impression model holds important the responsibility to preserve and extend public knowledge. The insight model adds that if education is to take place and public knowledge is to be preserved *and* extended, it must first be made meaningful by each learner (i.e., personalized by relating it to the learner's sense of reality), thereby developing insight that can serve as a stimulus for innovation (i.e., knowledge growth). The rule model provides that if the above processes are to be characterized as education, the public and personalized knowledge must be supported by reasons meeting the test of general and impartial governing principles. Education must introduce students to the principles generally accepted in the various areas of thought and action. More important, these principles are subject to being questioned and education is dedicated to their adherence in everyday action and their improvement when justified. In this way, education is practiced "in such manner as to respect the student's intellectual integrity and capacity for independent judgement" (Scheffler, 1981, p. 135); it is not done *to* learners but *with* them.

More Specific View on the Meaning of Education

Several philosophers have focused more specifically on the meaning of education. A selection is presented here to provide insight into what education ought to mean. John Dewey (1916) conceived of life as a process of self-renewal with education as the essential process in the renewal of social life—much in the same way that nutrition and reproduction are essential to physiological life. Education is primarily a process of transmitting the results of past experience through communication until they are the common possession of teacher and learner—the disposition of both is modified in this process. The functions of education are to simplify and order what is to be learned, to purify and idealize existing social customs, and to arrange a wider and better balanced environment for learning than would otherwise occur.

Through education, learners come to see that they share in the activities of society—that they are conjoined with others—and thereby their activities are given purpose. Social control as a guiding mechanism should reside within these conjoint activities; individuals try to fit in and in so doing come to understand the common means and ends of the situation. Control is then indirect, emotional, and intellectual; it becomes internalized. The role of education is to center actions toward a specific end and introduce an order of continuity to sequences of action. For this reason, Dewey suggests, "Schools require for their full efficiency more opportunity for conjoint activities in which those instructed take part, so that they may acquire a social sense of their own powers and of the materials and appliances used" (p. 40). To view education largely as a process of preparing or getting ready for some future duty or privilege is to divert attention from the learning and living possibilities in the present; it is to make the work of teacher and learner mechanical and slavish.

Through education, individuals grow; growth requires a sense of need for others through conjoint activities and the flexibility to learn from experience. Growth results in increased control over one's environment, but control in the responsible (to others) context of power which is to use what is learned for human purposes—power to balance the complex demands of life and improve conditions. For Dewey, "education is all one with growing; it has no end beyond itself. The criterion of the value of school education is the extent in which it creates a desire for continued growth and supplies means for making the desire effective in fact" (p. 53). As such, the results of education should be the capacity for more education.

Education is conceived as assisting in the process of utilizing the past to develop the future of an individual and society rather than accommodating the future to the past. The former requires continuous reconstruction of past experience in light of present and future conditions—essentially a definition of growth. This perspective requires development of criteria for a desirable society toward which education is to function. Dewey's criteria for measuring the worth of a form of social life are "the extent in which the interests of a group are shared by all its members, and the fullness and freedom with which it interacts with other groups" (p. 99). Using these criteria, Dewey gives meaning to the term democracy as a form of social life: "A society which makes provision for participation in its good of all its members on equal terms and which secures flexible readjustment of its institutions through interaction of the different forms of associated life is in so far democratic" (p. 99). Education in a democracy would then mean such

activities that "give[s] individuals a personal interest in social relationships and control, and the habits of mind which secure social changes without introducing disorders" (p. 99).

Another philosopher who has specifically addressed the meaning of education is R. S. Peters (1967, 1973). He explicitly notes that the definitive characteristics of education involve consideration of both its process *and* outcomes or what he calls task and achievement criteria, respectively. As such, there is no one process of education or one outcome but, rather, a family of processes that initiate the development of multiple outcomes. A second important characteristic of education is that it is inseparable from making judgments of value—in order to give meaning to education, one must make moral judgments about its legitimate procedures (tasks) and about what is worthwhile to be learned (achievements). The latter judgment about worthwhileness addresses the priorities assigned to all possible achievements in the context of limited resources and the aim of producing an educated person (i.e., Are technical achievements more important than moral achievements? What is most important to pass from one generation to the next?).

The criteria suggested by Peters for judging which achievements are worthwhile in order to be considered educated have already been described in the previous section on Educated Persons. The criteria for the task or procedures of education are, as already mentioned, that first, they not be morally objectionable; second, they be tailored to the development of the learner and the learner be aware of what is being learned. To focus on criteria for the means or procedures of education is not to ignore content but to say that the procedures by which education is done also form a part of content; means cannot so easily be separated from ends. The criteria for procedures form a group of principles that are held up as norms; for Peters (1973) these principles include "autonomy, self-origination, individual choice, and individual differences" (p. 24). The concern about individual differences reflects a concern that education should not be uniform but, rather, carefully adapted to differences in aptitudes and abilities. As Peters says, "For not all desirable things are within the scope of every individual; not all of them fan in some minds even the faintest spark of inclination. The plea is both for cutting the coat of what is desirable according to the cloth of individual aptitude and for the procedural principle that individuals should be allowed some say in discovering what this is" (p. 23). The latter part of this point relates to the concern for autonomy, self-origination, and

individual choice—the learner should be accorded some freedom in pace and bent of learning. These principles

> proclaim that education must permit areas of discretion within the sphere of what is thought desirable, that autonomy and self-origination are important in education. The child must be allowed to discover things for himself and learn by making his own mistakes. Attention is thus focused on procedures of education which involve both psychological theories about learning and moral principles about how children should be treated—for example, with respect and with regard to their freedom. (p. 22)

The aforementioned principles call attention to a group or family of educational procedures rather than a particular procedure. The family of procedures making up education include training, instruction, teaching, and learning by experience. These are to be distinguished from strategies used in the education process, such as extrinsic aids (i.e., rewards, praise), picking things up, where the learner merely catches on by imitation or identification, and conditioning, where the student is not aware of what is being learned. Of the processes included within the family of activities termed education, Peters notes that different processes may be of different relevance to various aspects of being educated.

First, training is relevant to the learning of skills defined as involving considerable practice and difficulty, often to the point of needing extrinsic motivational devices to supplement those that are more intrinsic to the skill being learned. Skills could encompass reading, writing, and computation as well as learning to type, play the piano, or teach a lesson. The concept of training has application when (1) there is a specific type of performance to master, (2) practice is required, and (3) there is little attention to the underlying rationale. Peters (1967) suggests it be used whenever "anything coming up to a clear-cut specification has to be learnt" (p. 15). The term "training" as an educational activity is not considered innately pejorative by Peters unless it is the *only* educational activity used to address a particular educational achievement. Ryle (1967), writing in the same volume as Peters and contrasting teaching and training, suggests that training, defined as teaching *to* and teaching *how to*, can often be more educationally enabling than teaching *that* because the method being taught in the former may often be adaptable to a wide variety of situations and styles. Training can be used in reference to technical as well as moral achievements (i.e., moral conduct).

Instruction is the second task Peters (1967) discusses as a member of the family of educational activities; instruction is linked to learning by experience—both are needed to build the conceptual schemes needed for learning "that certain things are the case." Through these activities the learner is able to place unique experiences within a more general framework and reciprocally to evolve this framework by testing through experience. For this to be accomplished, both instruction and experience must be tailored to the learner's stage of cognitive development, a practice that is difficult without a knowledgeable teacher, a reasonable number of students, and adequate facilities and learning resources.

Third, Peters links teaching as a task to that of the learning of principles. Principles are seen as higher level assumptions or rules that give unity to knowledge at a lower level. Prerequisite to learning principles are knowing lower level skills and a range of experiences. Principles are grasped by insight from teaching (rather than training), which is focused on the underlying rationale for skills and lower level knowledge.

The fourth educational process discussed by Peters (1967) is the transmission of critical thought. He suggests that critical thought is the opposite of indoctrination (which might more likely be the case with training) and is necessary to emphasize this process because there seems to be a human tendency to inertly believe what is heard, seen, or read. However, restraint is suggested: "if too much emphasis is placed on critical thought the danger is that all processes of education will be conceived too much in terms of what is necessary for critical attitude to emerge. This is one of the dangers imminent in Dewey's system in which the concept of being 'educated' is more or less co-existensive with that of being critical" (p. 19). Peters posits that critical thought is initiated when educators are willing to justify what is taught and are willing to deal honestly with situations that do not seem to fit accepted schemes.

Passmore (1967) takes up where Peters leaves off and goes into much more detail concerning the teaching of critical thought. He describes critical thought as more a character trait than a skill—the learner needs to be able to go beyond the stock criticisms on a given point. With critical spirit, "one must be alert to the possibility that the established norms themselves ought to be rejected, that the rules ought to be changed, the criteria used in judging performance modified. Or perhaps even that the mode of performance ought not to take place at all" (p. 197). Education that includes the transmission of critical thought must do so through the example of its teachers and the

general atmosphere of the education place. According to Passmore, "A child will be encouraged to be critical only if he finds that both he and his teacher can be at the same time called upon to defend what they say—to produce, in relation to it, the relevant kind of ground" (p. 198).

However, to be critical learners, they must already have some knowledge; the issue that emerges, particularly as the number of instructable rules grows, is when to make time for developing critical thought. One response is to postpone such development to the later stages of education, even to graduate education at a university and then give it to only a select few who are sufficiently mature to handle it. As Passmore then points out, how does one respond to Plato's reference to Socrates' point, "an unexamined life is not worth living." There is really not an a priori way of knowing if the majority of people are capable of being educated critically. However, it seems the risk must be taken, particularly if one claims to be a democrat which involves being "committed to believing that the majority of people are capable of participating at some level in discussions which lead to a change of rules, i.e., that they are capable of thinking critically about, as distinct from simply obeying, the rules." He is not committed to believing that "all men are equally capable of participating in every discussion which involves the criticism of existing rules or of accepted hypothesis" (p. 204).

Passmore's solution has already been acknowledged; critical thought "is not a subject in the sense in which chemistry or technical drawing or history are subjects. It can be fostered, or it can be discouraged, as part of the teaching of any subject—even if some subjects provide more opportunities for doing so, at least at an early stage, than others. A student may exhibit it as a translator, but not as a mathematician; as a landscape gardener but not as a historian" (p. 204). Most children, even the less intelligent, can be taught about critical discussion.

However, Passmore issues a warning to those who would accept this educational process lightly:

> Anybody who sets out to teach his pupils to be critical must expect constantly to be embarrassed. He can also expect to be harassed, by his class, by his headmaster, by parents. If he gives up the idea of teaching his pupils to be critical and salves his conscience by training them in skills, this is not at all surprising. But he should at least be clear about what he is doing, and even more important, what he is *not* doing. (p. 209)

Returning to Peters (1967), the fifth and last activity included in the family of educational activities is conversation; it is linked to developing the "whole-man." Peters notes that many of the important features of a conversation lead to developing more than one form of thought (specialization); these are the absence of lecture, the effort to create a common topic on which all can contribute, the goal which is to learn but not to teach anyone anything, the striving to see the world from another's view, the informal atmosphere, and the requisite knowledge, understanding, objectivity, and sensitivity. Quoting Spinoza, Peters points out that in developing this sense of wholeness, like human blessedness, "All excellent things are as difficult as they are rare."

Education as Development

The last writers whose thoughts are specifically examined here are Kohlberg and Mayer (1981); their perspective is that individual development is the end of education. This perspective is included because several of the positions on the meaning of education previously described have noted that it is important that education be adjusted or tailored to the needs of the learner. What does this mean? For Kohlberg and Mayer, an adequate meaning of the process and outcomes of education must be justified both ethically (what is right) and psychologically (what will work). The developmental approach claims uniqueness in both these ways.

First, by way of explanation, the developmental perspective (termed at various times cognitive-developmental or developmental-philosophic) has the dialectic as its metaphor; that is, development is a progression of ideas as in discourse or conversation. It is founded on Plato, Hegel, Dewey, and Piaget. As Kohlberg and Mayer describe further, in cognitive development "a core of universal ideas are redefined and reorganized as their implications are played out in experience and as they are confronted by their opposites in argument and discourse. These reorganizations define qualitative levels of thought, levels of increased epistemic adequacy. The child is not a plant or a machine; he or she is a philosopher or a scientist-poet" (p. 56). Cognitive development occurs as individuals (as organisms) interact with their environment. This development "is defined as change in cognitive structures" (p. 57). In turn, these structures are "internally organized wholes or systems of internal relations;" they are "rules for the processing of information or the connecting of events." Cognitive development entails "a dialogue between the child's cognitive structures and the structure of the environment," and results in "cognitive change in distinctively human, general patterns of thinking about the self and the world" (p. 56). Development takes place in stages characterized by Piaget (1960)

as (1) qualitatively different ways of thinking about or solving the same problems, (2) invariant in sequence or order in development, (3) each stage forming a "structural whole"—an integrated, underlying thought organization, and (4) arranged hierarchically, each stage representing increased differentiation and integration in structure.

> This perspective holds that the appropriate outcome of education is
>
> facilitating the child's movement to the next step of development involves exposure to the next higher level of thought and conflict requiring the active application of the current level of thought to problematic situation. This implies (1) attention to the child's mode of styles of thought; (2) match of stimulation to that stage; for example, exposure to modes of reasoning one stage above the child's own; (3) arousal, among children, of genuine cognitive and social conflict and disagreement about problematic situations (in contrast to traditional education, which has stressed adult "right answers" and has reinforced "behaving well"); and (4) exposure to stimuli toward which the child can be active, in which assimilatory response to the stimulus situation is associated with "natural" feedback. (Kohlberg & Mayer, 1981, p. 59)

Individuals move through the different levels of development or stages at different speeds and may stop at particular stages. The aim of development education "is not the acceleration of development but the eventual adult attainment of the highest stage. In this sense, the developmentalist is not interested in *stage acceleration*, but in avoiding *stage retardation*" (p. 91). Another important concept for the developmentalist is "horizontal decalage" which describes a desired way in which the structure of thinking at a particular stage is characterized by "spread or generalization across the range of basic physical and social actions, concepts, and objects to which the stage potentially applies" (p. 91). Using this idea, it is posited that "there is always a cognitive component to development, even in social, moral, and ethical areas. Development, however, is broader than cognitive-logical development. One central area is moral development, as defined by invariant stages of moral reasoning" (p. 91). Such a set of moral stages has been conceptualized and investigated by Kohlberg (1981) and critiqued by Gilligan (1982).

Going still further with the notion of horizontal decalage, Kohlberg and Mayer point out "although developmental moral education widens the focus of cognitive-developmental education beyond the purely cognitive, there is still broader unity, called ego development, of which both cognitive and moral development are part. One pole of ego development is self-awareness; the parallel pole is awareness of the world. Increasing awareness is not only 'cognitive,' it is moral, esthetic, and metaphysical; it is the awareness of new meaning in life" (p. 93). Empirical research on ego development

suggests that such spread is necessary to developing ego strength at a given stage and that development is a life-long process (Loevinger, 1976).

Turning from the psychological back to the criterion of ethical justification, Kohlberg and Mayer maintain that the developmental aim of education must be justified by reasoning why a higher stage of development is somehow better. That set of reasoning, following the ethical-liberalism view, claims that at higher stages of development, the learners are better able to understand and construct logical and ethical principles and recognize the principles they themselves hold. This ability is, in turn, held to be essential to education in a democratic society where citizens need to confront and make choices. Using Piagetian findings, they argue that this position is not utopian since "all children, not only well-born college students, are 'philosophers' intent on organizing their lives into universal patterns of meaning" (p. 96). Epistemologically, Kohlberg and Mayer claim, "the cognitive-developmental approach derives from a functional or programmatic epistemology which attempts to integrate the dichotomies of the inner versus outer, the immediate versus the remote in time, the unique versus the general" (p. 63)—in this way it is very practical.

In conclusion, the cognitive-developmental approach to giving meaning to education is a way of translating Dewey's vision into an operational reality. Kohlberg and Mayer remind us that Dewey's ideal "is comparable within the notion that the child is involved in a process of both academic and vocational education. Dewey denied that educational experience stimulating intellectual and moral development could be equated with academic schooling. He claimed that practical or vocational education as well as academic education could contribute to cognitive and moral development; it should be for all children, not only for the poor or the 'slow'" (p. 96). In Kohlberg and Mayer's words, "our educational system currently faces a choice between two forms of injustice, the first an imposition of an arbitrary academic education on all, the second a division into a superior-academic track and an inferior vocational track. The developmental conception remains the only rationale for solving these injustices and for providing the basis for a truly democratic education process" (p. 96).

Summary

Some of the characteristics of education that seem particularly salient for the purposes of proposing a subject matter of vocational education are as follows:

- For education to lead to the intellectual activity of understanding, a prerequisite to insight, innovation, and appreciation, what is learned must be personalized; to be personalized, education must use the aesthetic possibilities in present as well as future experiences.

- For education to lead to a sense of power and control over one's life and responsibility toward others, prerequisites to a democratically functioning society, the learner (and teacher) must be critical of what is learned and able to reason what is acceptable on intellectual and moral grounds.

- Education encompasses a family of activities that must meet certain norms including being ethical in process, attentive to individual differences, and stimulating to individual development.

- Education does not lead merely toward specialization, but, rather, to a changed way of looking at things, of seeing a coherent and evolving pattern in the diverse decalage of life experiences.

Vocation(al)

What comes to mind when vocation or vocational is used today? The term vocation has a long and honorific history of meaning with ethical, aesthetic, and technical dimensions. The discussion of meaning that follows starts with a contrast of the thinking of John Dewey and David Snedden in the early part of this century at about the time vocational education came to be a recognized concept in the United States. Some of the content of this section is drawn from Copa (1988). Next, the discussion will move to an analysis of the history of the meaning of vocation, culminating in the attention given to the ethical and aesthetic dimensions of vocation. In the summary for this section, as was done for the concept of education, a set of propositions are stated to guide the selection of appropriate subject matter for an education that is to directly address the vocational aspects of life.

Dewey's Meaning of Vocation(al)

The thoughts of John Dewey in *Democracy and Education* (1916) regarding the meaning of vocation are a good place to start because they are used in the context of discussing vocational education, because of the stature of the author in the field of education, and because of the prominence he gives to describing the meaning of this term. First, concerning definition, Dewey states

> A vocation means nothing but such a direction of life activities as renders them perceptibly significant to a person, because of the consequences they accomplish, and also useful to his associates. (p. 307)

A vocation thereby includes activities that have consequences for the individual doing them *and* for others. No delimitation is made in the nature of the consequences (i.e., that they are merely wages) or in how they are significant (i.e., as only a means to secure other things) except that they result from life activities that give direction or a sense of ends, order, and planning to an individual's life. Dewey makes clear the relevance of "directedness" from a personal and social perspective to the meaning of vocation by declaring that the opposite of vocation (he uses the word career) is

> neither leisure nor culture, but aimlessness, capriciousness, the absence of cumulative achievement in experience, on the personal side, and idle display, parasitic dependence upon the other, on the social side. (p. 307)

He warns about the misguided strategy of contrasting the meaning of vocation with the meaning of leisure or liberal culture. Rather, vocation is where labor and leisure, theory and practice, body and mind, and intrinsic and extrinsic can come together. Vocation can be at once both means and end. Individual and social satisfaction can result from vocation both as a means and as an end. Vocations are a means by which an individual can amount to something (an end).

In this context, Dewey defined occupations in a broad sense (i.e., not only referring to paid employment). Rather, occupation is a

> concrete term for continuity. It includes the development of artistic capacity of any kind, of special scientific ability, of effective citizenship, as well as professional and business occupations, to say nothing of mechanical labor or engagement in gainful pursuits. (p. 307)

Occupation denoted continuous focus and effort at one's vocations. For Dewey, the word continuity had special meaning. Continuity is best clarified by Dewey in a much later work, *Experience and Education* (1938), and referred to the idea that all past experiences

are linked to and influence all present and future experiences. There is an "experiential continuum" (Dewey, 1938, p. 28). An individual's vocations provide the "advance organizers" for information and ideas, knowledge and intellectual growth; they serve as the axis that runs through and allows one to make sense of details; they serve as the motivation to reach out for new experiences; they serve as the magnet to draw these experiences in and the glue to hold them together; vocations are the ways individuals are active and alive. The right occupations for an individual are when there is a balance (match) between the distinctive capacity of an individual and the need for social services—the aptitudes of the individual are adequately in play so that others are getting the best service possible and the individual is getting maximum satisfaction. This appears *not* to be a simple process since Dewey maintains that individuals possess an infinite variety of capacities. The process of finding the right occupations must continue as the individual grows, that is, new capacities and aptitudes must be discovered. Drawing from his idea of continuity, Dewey cautions that

> We must avoid not only limitation of conception of vocation to the occupations where immediately tangible commodities are produced, but also the notion that vocations are distributed in an exclusive way, one and only one to each person. Such restricted specialism is impossible; nothing could be more absurd than to try to educate individuals with an eye to only one line of activity. In the first place, each individual has of necessity a variety of callings, in each of which he should be intelligently effective; and in the second place any one occupation loses its meaning and becomes a routine keeping busy at something in the degree in which it is isolated from other interests. (p. 307)

This viewpoint raises serious questions about the worthwhileness of discussions concerning the vocational category (i.e., parent, plumber, secretary, professor, civic volunteer) in which a particular individual ought to fall. Dewey implies these discussions are largely unresolvable, make little sense, and may be harmful. As he goes on to say,

> No one is just an artist and nothing else, and in so far as one approximates that condition, he is so much the less developed human being; he is a kind of monstrosity. He must, at some period of his life, be a member of a family; he must have friends and companions; he must either support himself or be supported by others, and thus he has a business career. He is a member of some organized political unit, and so on. (p. 307)

Self-examination and brief discussion with others would quickly reveal that individuals do, in fact, have multiple vocations involving their roles in a family, in a social group, at a place of worship, *and* in a place of business. Further they practice all of these vocations at the same time—at least routinely within the same day. To focus on only one vocation and then to treat it as if it is not developing is to fossilize the individual—to shut down

life for the person. How is it that approved practice now is to guide, teach, and evaluate students into mutually exclusive vocations? Dewey hints at the error:

> We naturally name his vocation from that one of the callings which distinguishes him, rather than from those which he has in common with all others. But we should not allow ourselves to be so subject to words as to ignore and virtually deny his other callings when it comes to a consideration of the vocational phases of education. (p. 307)

What are the vocations that individuals hold in common? Might it not also be possible to extend Dewey's point to a realization that most individuals may be satisfactory in *most* vocations. That is, individuals could be characterized in terms of all the vocations they are able to handle rather than, at the other extreme, the one vocation that distinguishes them from other individuals and that they are presently doing. This latter tradition becomes even less reasoned if one considers (as Dewey does) the ultimate vocation to be living—intellectual and moral growth—and the ultimate employer to be the community. Considered in this light, there are cultural possibilities in all of an individual's vocations; the intellectual and moral content of each must be realized to get the maximum satisfaction out of living.

Dewey makes another major point: there is a great deal of interaction between an individual's vocations *and* this interaction is necessary to a full enjoyment of life. He states,

> As a man's vocation as artist is but the emphatically specialized phase of his diverse and variegated vocational activities, so his efficiency in it, in the humane sense of efficiency, is determined by its association with other callings. A person must have experience, he must *live*, if his artistry is to be more than a technical accomplishment. He cannot find the subject matter of his artistic activity within his art; this must be an expression of what he suffers and enjoys in other relationships—a thing which depends in turn upon the alertness and sympathy of his interests. What is true of an artist is true of any other special calling. (p. 308)

The meaning of vocation for an individual's life must take into consideration the interactions between multiple vocations, perhaps more than focusing on a particular dominant vocation. For to do the latter would be to miss a large part of the potential opportunity for giving meaning. Rather, each vocation must be saturated with meaning in terms of both the present and future possibilities it holds. Such meaning will be negative and contribute to dissatisfaction if any of an individual's vocations are held in contempt by others. The greatest tragedy would be for vocations to contain no meaning or negative meaning—to make no appeal or to make it only for extrinsic rewards (i.e., money,

security, power). For then there would be little engagement and much lost opportunity for living and, if negative, provocation of aversion and ill will. Dissatisfaction with life is possible for both the powerful and powerless—while its impact on the powerless is described often, with the powerful its impact can take the form of isolation and lack of social potency. Focusing on the interactions between an individual's vocations is likely to shift reflection to what is an appropriate balance. As Dewey goes on to say,

> There is doubtless—in general accord with the principle of habit—a tendency for every distinctive vocation to become too dominant, too exclusive and absorbing in this specialized aspect. This means emphasis upon skill or technical method at the expense of meaning. Hence it is not the business of education to foster this tendency, but rather to safeguard against it, so that the scientific inquirer shall not be merely the scientist, the teacher merely the pedagogue, the clergyman merely one who wears the cloth, and so on. (p. 308)

Focusing on a particular segment (vocation) in an individual's life, particularly from an educational perspective, can have a harmful effect which is in the tendency to focus more on skill or technique and less on meaning—the individual may become very skillful, but, at the same time, the skill may become meaningless to their lives.

Dewey proposes that the ideal society would be one in which

> every person shall be occupied in something which makes the lives of others better worth living, and which accordingly makes the ties which bind persons together more perceptible—which breaks down the barriers of distance between them. It denotes a state of affairs in which the interests of each in his work is uncoerced and intelligent; based on its congeniality to his own aptitudes. (p. 316)

An ideal educational program that acknowledges the full intellectual and social meaning of a vocation would include the following:

> instruction in the historic background of present conditions; training in science to give intelligence and initiative in dealing with material and agencies of production, and study of economics, civics, and politics, to bring the future worker into touch with the problems of the day and the various methods proposed for its improvement. Above all, it would train power of readaptation to changing conditions so that future workers would not become blindly subject to a fate imposed upon them. (p. 319)

An education of this kind would develop a "courageous intelligence"—one that empowered individuals with a sense of responsibility to be executives of their own life and to act practically. However, Dewey was not naive with respect to social conditions in 1916 when he stated that this ideal vocational education

> has to contend not only with the inertia of existing educational traditions, but also with the opposition of those who are entrenched in command of the industrial machinery, and who realize that such an educational system if made general would threaten their ability to use others for their own ends. (p. 319)

It is now seventy years since these lines were written by a prominent educational leader. What progress has been made toward reaching these ideals for society and education? Do those responsible for vocational education have the courageous intelligence Dewey describes as a seemingly necessary prerequisite for imparting it to their students? Is there, at least an instance, a reflection on this ideal each time the word vocational is read, uttered, and written? Why does it not go without saying?

A Critique of Dewey's Meaning

What critique could be made of the meaning Dewey attributed to vocation? First, one could argue that the meaning is much too idealized—that many (if not most) of today's occupations in the United States, particularly those involving paid employment, are not vocations in the sense of being opportunities to give meaning to one's life or to improve society, particularly morally (Warnath, 1975). This argument would draw upon studies such as *Work in America* (Special Task Force, 1972), Terkel (1974), and O'Toole, Scheiber, and Wood (1981). What Dewey might think "ought to be" simply is not "what is" with respect to the desired characteristics of work. Engaging in fanciful delusion will not make it happen, and it may well be a cruel hoax to convey this idea to others, particularly the young. With some feeling of sympathy for the ideal but with a clearer and more vivid picture of reality, one might offer Dewey the practical advice that one should look elsewhere to find meaning in one's life and a sense of control. If this situation is to be changed, it is a major political issue that is better decided in the ballot box rather than in the workplace, the school, or the home.

The second line of critique, perhaps best articulated by David Snedden (1920), is that it is better to do what is possible and feasible rather than to accomplish little by dwelling on an impossible ideal—to do something specific that will make conditions a little better, rather than to work on the abstract, more general utopian ideal which holds great promise but at very high risk of failure. The argument might suggest that as life goes on day in and day out, it can be made better for some in various ways. Such could be the case by focusing on those vocations that distinguish individuals and at least provide good technical skills. The premise is that society as a whole will be at least

somewhat better off with this strategy—the standard of living will be higher (at least materially). Other improvements can follow as opportunities present themselves. An incremental strategy is advocated as being most expedient and practical. Some vocations are not very satisfying (to anybody), but they are better than no jobs at all. Technical education is not a substitute for a general education, but it is better than none. Specific training for a vocation that now has a vacancy is better than broad preparation for ideal vocations that do not exist. In any case, this perspective holds that perhaps some (or most) individuals do not have the physical and mental capabilities to handle the demands of vocations in the ideal sense.

What is the current perspective on the word vocation, particularly in the context of vocational education? Is there a slight cringe when the word "vocational" is used? Why? Why is its meaning no longer very clear? Why do we ask what is your work or job rather than vocation? Why do we add the words "and technical" in reference to vocational education programs? What games we play with ourselves and others! Or do we? Perhaps our everyday use of the language is revealing.

Some enlightenment may be provided by examining further critiques of Dewey's perspective on vocation. Perhaps the most sympathetic yet critical analysis of Dewey's thoughts about vocation and vocational education as described in *Democracy in Education* (1916) was offered by David Snedden in his book *Vocational Education*, published only four years after Dewey's in 1920. Snedden's remarks will be used here to provide a sense of the consequences of adopting Dewey's perspective on vocation. Snedden was selected because his analysis is specifically addressed to the language used in the prior section, because he was a prominent leader in vocational education, and because the two were contemporaries, writing about the same social and economic conditions.

Snedden defines vocation as

> in the sense of "calling," "chief occupation," or primary "gainful pursuit." It can be assumed that every adult in possession of his natural powers renders to the world some form of service, in return for which he receives the services (or the products of the services) of others. To the rendering of this service, each adult usually devotes definite portions of his time and energy. He tills the soil, weaves cloth, keeps books, commands soldiers, teaches, writes poetry, drives a locomotive, superintends a factory, digs coal, heals the sick, cleans the street, or keeps a home. For the services thus rendered steadily in the one or the other of these fields his fellows pay

> him with portions of the results of their service, money, of course, serving only as a convenient measure and means of making such payment. (p. 1)

As is evident, Snedden focuses on an individual's *primary* vocation as her or his real vocation. He describes other activities as being avocational, as, for example, parenting is to a father (as opposed to a mother). The assumption is that specialization is necessary and therefore some system of exchange is necessary with money serving as a medium. Snedden's conception of vocation seems to reflect a primarily economic perspective.

In response to Dewey, Snedden begins by stating that he

> finds himself in agreement with much that Mr. Dewey urges, both by way of criticism of historical forms of school education, and of positive proposals for the improvement of that education. The reconstruction of school curricula, at least for children under twelve years of age, along the lines suggested by Dr. Dewey, will without doubt prove of very great value to the individual as well as to society. (p. 397)

From this opening, one assumes that Snedden would like to wholeheartedly endorse Dewey's ideals for vocation and vocational education as well as for society. However, his concern for what is practical, particularly for vocational educational policy and practice, is already manifest in his limitation of the value of Dewey's ideas to children under the age of twelve. He goes on to be more explicit about this concern for practicality by noting that the real implications of Dewey's ideas are not discernible because

> Dr. Dewey rarely discusses the problems of the age groups, vocational specializations, and limitations of native abilities which are the inescapable realities of all contemporary social life as that presents itself to social economist and educator everywhere. (pp. 397-398)

More specifically with respect to Dewey's definition of vocation, Snedden states,

> For several years it has seemed to many of us much more serviceable, as well as in accordance with popular understanding as interpreted by the makers of dictionaries, to restrict the term "vocation" to that more or less continuous (in the sense of being taken up day after day) occupation by which adults primarily produce the exchangeable services or commodities essential to their support. . . . Because, historically, the welfare of man as well as that of his family has depended so generally upon the success where with he pursues his vocation, it has been natural for that vocation to hold a central or primary place among the activities with which he concerns himself—and especially as he becomes purposive, self-controlled, and "civilized." (pp. 398-399)

The importance of considering present social circumstances when assigning meaning to a term such as "vocation" is revealed in Snedden's thinking. Also there is the deeper insight that consideration of what is practical necessitates being specific and focused. Suggesting (as Dewey does) that the "dominant vocation of all human beings at all times is living—intellectual and moral growth" is from Snedden's perspective using the term vocation in a very unrestricted way that only results in confusion. Why not simply admit and accept that in ordinary language vocation refers to one's paid employment and homemaking? The gain in clarity and focus seem adequate justification for Snedden.

Next, Snedden points out the need to recognize the implications of existing industrial and work specialization in addressing the meaning of vocation and vocational education:

> Now, whether we like it or not, it is a fact that vocational specialization is the rule in the modern economic order. . . . The more able and enlightened men and women of our time in all lines are seeking opportunities to do their economically productive work—the part constituting their vocations are here defined—in highly specialized fields. . . . Mr. Dewey seems to feel that this subdivision of labor is undemocratic besides being otherwise undesirable (p. 401). Now it is certainly true that in the present industrial regime there are all sorts of undemocratic possibilities. But are these inherent? If so, how do we explain the fact that with perhaps one exception, modern industrialism is advanced farthest in countries and regions most noted for political democracy? (p. 402)

Snedden makes the point that specialization has greatly benefited our standard of living and that the greatest specialization has occurred in democratic societies. However, he is most interested in saying that specialization is the way things are (and likely to be) in the industrial context—this fact must be recognized in giving meaning to vocation. To ignore the existence of specialization leads to impractical notions of the blending of vocations and to the blending of vocational and nonvocational education and, even further, the blending of education for one vocation with that of another.

Snedden defines general education as focusing on those "qualities and powers" that are useful in all vocational *and* nonvocational activities of life. However, vocational education

> consists only of divisions or subjects of all possible instruction and training which primarily prepare one for the effective exercise of vocation over that span of years during which it is, or normally should be, followed. . . . It is only to the production of those specific skills and forms of

> knowledge where in the dentist differs, as respects the production of economic goods, from the barber that the words vocational education, properly or in best usage, apply. (p. 403)

Snedden is generalizing the presumed benefits of specialization from industry to education—and vocational education is conceived and derives its meaning and rationale from this extension. Snedden recognizes the consequence of creating an educational dualism, of separating general and vocational education, but he reasons,

> Now this may be an educational dualism, but if so, it is a dualism based upon the present and probable future realities of life. . . . It is certain that a man's various activities sum up into a kind of unity, as does a house, a farm, a tree, the human body, or any other composite of more or less interdependent parts. But, for practical purposes, we can consider not only separateness of parts or functions, but also the special means of producing or improving specific parts or functions. (p. 404)

For Snedden, the important question is not so much that specialization is desirable but rather that it is inevitable. The real issue is when (at what age) to begin the specialization. Dewey's failure to address this issue is criticized:

> For many readers the fact that Dr. Dewey does not carry his discussion to the point of at least illustrating by concrete reference to age groups proves a source of uncertainty and confusion. With such a statement, for example, as "the only adequate training for occupations is *through* occupations" all *can* agree. But when he says, "to predetermine some future occupation (vocation?) for which education is to be a strict preparation is to injure the possibilities of present development and thereby reduce the adequacy of preparation for a future right employment," we find ourselves in agreement or disagreement according to the age and other conditions of the particular person under consideration. (p. 404)

Snedden is asking how long one must wait to begin specialized education. Specialized education is provided for medicine and for teaching; for the same reasons, it should be provided for farmer, machinist, and homemaker. Again, Snedden turns to reality for his most practical answer:

> it is a social fact, as it always has been, that the great majority of young people elect, or are obliged, to become productive workers . . . between the ages of fifteen and eighteen. (p. 405)

Less important are other social facts:

> It is highly desirable, certainly, that, as far as practicable, these early choices of vocations should not be final and irrevocable—and nowhere has the freedom to shift from calling to calling been further developed than in America. (p. 405)

In this context Snedden endorses Dewey's idea that early preparation for vocations be indirect rather than direct, but this indirect education is more appropriately thought of as part of general education, not vocational education.

Given that vocations refer primarily to paid employment (except for homemaking), that most employment is specialized, that vocational education is defined in terms of this specialization, and that vocational education should therefore be direct education, the next issue to be addressed is the ethical question of using existing vocations as a basis or content for vocational education. Snedden agrees with Dewey about the relevant social facts, but he disagrees regarding the solution and particularly the role of vocational education:

> Dr. Dewey is right in analyses of present industrial and commercial specialization. . . . Without doubt, "while the intellectual possibilities of industry have multiplied, industrial conditions tend to make industry, for great masses, less of an educative resource than it was in the days of hand-production for local markets." (p. 406)

This is viewed as a problem for individuals as citizens and not as workers; in fact, Snedden argues that this is an important reason for separating vocational education from general education:

> it is for just this reason that many educators hold as necessary the conscious differentiation of education for citizenship from education for vocation. We may say, indeed, that modern production, as a condition of economic efficiency, tends to regiment its workers as workers; but it should not, and does not, if properly safeguarded, regiment them as citizens or cultured personalities. (p. 406)

It is precisely because of the possible need to do something to remedy the condition of industrial workers that it is necessary to separate vocational education from general education, where the education for citizenship is to occur. To do otherwise is to risk exploitation of general education to preserve the prevailing industrial order. As Snedden goes on to explain

> It is apparent that Dr. Dewey, as all other persons sensitive to the pathological situations produced by the modern industrial order, greatly desires educational readjustments that will, as he hopes, tend to remove the limitations implicit in the systems (of industry). What many of us doubt is the practicality of achieving the desired ends along the lines indicated by Dr. Dewey. In so far as the suggestions . . . can be carried out in schools of general education, he has our hearty support. But in so far as he makes these proposals as possible contributions to programs of vocational education, they seem purposeless and futile. (p. 408)

Snedden is acknowledging the social problem but claiming that Dewey's ideals hold little practical opportunity for educators and even less for vocational educators. For the questions are held to be "sociological first and educational second." Snedden concludes that

> Society, in its profounder evolution, uses education as a means; and it is, of course, true that the education of today determines in part what the next generation shall think and feel. But educators are prone to lose sight of the fact that throughout all historic times education has been the means employed by the controlling forces in society; it is merely a pleasing fantasy that educators as a class have any extensive control of this means. The "social forces" growing out of man's instinctive nature, out of the economic limitations which surround him, and out of the social inheritance which he has created must largely determine what, in any age and clime, shall be the direction taken by those servants of the majority will, the educators. (p. 409)

Snedden does not stop here. He uses stronger language to point out that this lesser role for educators is "responsible" and, in the long term, in the best interest of society:

> It is clearly not the business of the educator with his inexperience to tear down existing social structures of long standing and slow evolution in the vague expectation that he, with the aid of some school children, can rebuild them along sound architectural lines. Nor would it seem worthy conduct in him to stand aside and refuse to share in amending present conditions because, forsooth, he thinks they should be reconstructed in their entirety. Of course education should operate as a means of transforming the industrial order—provided we have some reasonable assurance as to the practical course of such transformation. . . . Until the scouts and the adult vanguard have reached some agreement as to the roads ahead, the plastic generation in the rear must hold to the tried paths—any other course means ruin. (pp. 409-410)

For Snedden, the transformation of industrial society, even by small changes through political action or passive resistance, seems to have little to do with vocational education. It is something different from vocational education "both sociologically and psychologically."

We contrast Dewey and Snedden here to raise some serious questions about the meaning of vocation, particularly in the context of vocational education. One question concerns the proper distinction between vocation as all of life and vocation as one's ordinary work or occupation. Where is the line appropriately drawn between these two meanings of vocation, if it should be drawn at all? More important, how is this line drawing to be reasoned? Second, is one's vocation *not* a proper place to attempt to improve a democratic society in terms of ensuring full human development and

happiness? Does one's vocation involve one's responsibilities as a citizen? Third, should one's vocation give a good measure of meaning to one's life? If so, what does "give meaning" mean? How might it occur? These three questions, which are all related, will be pursued in some depth in the following sections.

History of the Meaning of Vocation(al)

The word "vocation" has a long and interesting history. Its etymology is provided in the *Oxford English Dictionary* (Murray, 1961); the definitions listed are as follows:

> (1) The action on the part of God of calling a person to exercise some special function, especially of a spiritual nature, or to fill a certain position; divine influence or guidance toward a definite (esp. religious) career; the fact of being so called or directed toward a special work in life; natural tendency to, or fitness for, such work; (2) the particular function or station to which a person is called by God; a mode of life or sphere of action regarded as so determined; one's ordinary occupation; business, or profession; (3) a call to a public position. (p. 278)

Since much of the meaning of the word "vocation" comes initially from its religious use in Western culture, it seems appropriate to begin this analysis by referring to the interpretation given to vocation in the Bible. As noted above, the word vocation means a "calling" (e.g., to summon or invite, to choose or to elect). Minear (1954) summarized the New Testament understanding of vocation as follows:

> Its source is God's calling of a man to be His son. This calling has already been received but it is yet to be realized fully through the response of the son. . . . The perfect pattern of vocation becomes clear in the person of Jesus Christ, in whom both the divine calling and the human response meet. He is the image of the new Man. In him mankind is being restored to its authentic vocation. To each believer the Holy Spirit gives tasks appropriate to his calling and capacities needed for their accomplishment. All of this work is intended to become part of the continuing work of Christ, his efforts becoming expressions of the new life in Christ. Christ continues to guide the mission of his Body, in which Body there is a distinctive function for every member. There is one vocation for all, yet each has his own distinctive work to do. (p. 71)

In this context work is definitely subordinate to the concept of vocation; it relates more to the tasks or earthly station to which one has been assigned as one of several means toward accomplishing one's vocation (as assigned by God).

During the fourteen hundred years leading from the apostolic age to the beginning of the Protestant Reformation, the religious (Christian) meaning of vocation and its

relation to life first narrowed and then broadened (Calhoun, 1954). From the major focus on vocation as a role to which everyone was called with a single standard, there later emerged

> widespread acceptance of a double standard of Christian living for ordinary Christians, obedience to the "commandments" . . . for the seekers of perfection, the harder "counsels" of poverty and celibacy, and the contemplative life. Although every Christian was indeed called, in the most general sense, only the monastic life deserved, as an earthly status or order, to be named a vocation. (p. 103)

As the distinction between ordinary Christian life and monastic vocation grew sharper with the development of a feudal society, so too the separation between ordinary work and Christian vocation became wider.

However, this trend was reversed with the decline of the feudal aristocracy, the rise of a prosperous middle class, and the growth and spread of mysticism. Mysticism focused on seeing God in the present life, not only in a life after death. To do so was to be called, an event that could occur to the ordinary layman as well as to the monk. The concepts of daily work and divine vocation "were brought together with startling emphasis in Luther's teaching and in Calvinism (especially in England and North America)" (Calhoun, 1954, p. 106). As further summarized by Calhoun,

> this involved a new assertion of the absoluteness, the transcendent holiness and sovereignty of God, that rules out any supposition that men, high or low, righteous or unrighteous, could have any just claim upon God. The whole system of sacramentally infused virtues and acquired merits is abolished, root and branch. . . . But faith itself is God's doing, not man's; and no earthly organization or discipline can lay claim to a preferred status in the life of faith and grace. There simply is no such thing as humanly earned merit, let alone surplus merit. . . . In this context, Luther adopts and develops much further the insight of the later mystics, that any sort of serviceable status in society, through which one may serve his neighbors, deserves to be regarded as a divinely ordained calling (a vocation). (pp. 107-108)

These views were shared by Calvin and the Reform wing of the Protestant movement; vocation was used with the same meaning, and "Christian vocation was understood to require active social and political reform" (Calhoun, 1954, p. 109). Later social pressures during and following the Protestant Reformation again led to a separation of ordinary work and the earlier meaning of vocation. These social pressures sought less control of business enterprise by parsons or parliaments and approval of usury, private purchase of public land, and competitive trading for high profits (as opposed to just

price). Calhoun notes, "Poverty came to be regarded not as a special claim to generous help from the community, but as at once a mark of moral delinquency and an economically useful fact to be exploited, not cured" (p. 110). During this time of rapidly expanding commercial economies in Western Europe and North America, the meaning of the term "vocation" significantly shifted from Luther's definition. Turning again to Calhoun

> seventeenth-century Calvinists and sectarian individualists, busily engaged in bringing a new economic order to birth and conquering a new world of unexplored resources, saw no impropriety in judging that prosperity for one who labored diligently in his calling was a mark of divine approval, not a sign of the deadly sin of avarice. . . . As the business world of the late seventeenth and the eighteenth centuries freed itself from churchly and governmental control, it insisted on regarding itself as free also from liability to criticism on grounds of Christian morality. The will of God was either equated with successful business practice, or it was excluded from any effective relevance to worldly affairs.
>
> The terms "vocation" and "calling" were still retained, but they came to mean little or nothing more than worldly activities pursued with diligence for their own sake, and for the sake of worldly rewards. . . . This reduction of the once religiously powerful words to secular dimensions, having meaning only in terms of the present world of affairs and its standards of success, continued through the nineteenth century and into our own time. The economic and political movement of which it has been one aspect has brought immense gains for human welfare, along with less widely recognized losses. (p. 111)

In a treatise on "Work and Vocation in American Industrial Society" Michaelson's (1954) interpretations of the meaning of vocational, particularly in a North American context, seem consistent with the view following the Protestant Reformation. He stated,

> out of the background of Protestantism *and* the pressures and challenges of the environment, the American has formulated an independent ideal which might be labeled "Yankee Enterprise" or the "American Gospel of Work." Thus the early Protestant ideal of capturing the world of work for the glory of God was replaced by the "Yankee" ideal of working for man's glory—or for one's own enhancement. Christian vocational became secularized. A Protestantism which set out to "spiritualize commerce" became so corrupted by the pressures of practical economics that it ended up by "commercializing the spirit." (p. 117)

Looking back over the meaning given to vocation in America, Michaelson starts his analysis with the Protestant Reformation and reiterates that

> this movement placed a renewed emphasis on the role of vocation in the life of the ordinary Christians, and—at the same time—they developed a different understanding of the meaning of vocation from that most

> commonly held in medieval Christianity. The distinction between religious and secular callings was no longer made by the Reformers. Man's response to God's call was understood in terms of worship and work. . . . All aspects of one's life are caught up in this response. One exercises his Christian vocation, then, as father, mother, son, or daughter, as citizen and as worker. (p. 117)

Early Puritans considered the idea of Christian vocation important but distinguished between general calling and personal calling or vocation. For them the personal calling was mediated by the community which, in turn, had a special relationship to God. Work was understood to be a personal calling and service to the community. The ideal that individuals were free to choose their work as they might was soundly condemned. Later within seventeenth-century Puritanism, Michaelson noted

> Industry came to be identified with righteousness, and idleness with sin. Utilitarianism as a primary motive to work . . . replaced an attitude of grateful response to God as primary incentive. Sensuality came to be regarded as a more fundamental sin than pride or covetousness. A communal ethic was supplanted by an individualistic ethic, as the covenant theology disintegrated. (p. 120)

By the nineteenth century Michaelson maintained

> American Protestantism had almost completely succumbed to the American gospel of work. The religious life was freely and openly advocated as assuring (or even demanding) success. Service to God and service to Mammon were harmonized, as far as this was possible. "Calling" was interpreted almost entirely in terms of a highly emotional and personal experience of conversion—an experience which really had little direct bearing on one's daily work. Insofar as a change of ways was called for it was conceived of largely in terms of "religious" work, i.e., doing good through charitable, missionary, and reform organizations, or in terms of personal and petty morality—swearing, drinking, etc. (p.120)

The "American Gospel of Work" was characterized by Michaelson as built on the assumption, "that hard work will gain all that one needs in this life—the needs of life usually being thought of in materialistic terms. The gospel of the optimistic and individualistic" (p. 1). The optimism implies that individuals can actually make it to the top through their own efforts. The individualism suggests that individuals are basically selfish and will rationally pursue their own interests if given a choice, interests that are primarily extrinsic or material. With an ideology of optimism that affirms the opportunity for betterment, of individualism that negates the possibility of cooperative action, and of materialism that provides motivation, those who work are very much in a

position to be exploited by those who control the distribution of materials—so cogently made explicit by Marx (1844). Part of the remedy suggested by Michaelson is that the

> working man needs to be recognized as a citizen in the industrial enterprise and made to feel that he has a role in the total process which is not merely economic. His work needs to be recognized as an integral part of his total life, and to be given some status beyond that which results from its place as a highly specialized and minute contribution to the total production and profit of industrial enterprise. (p. 2)

In a sense, ordinary work and vocation must be brought closer together again to give work the meaning once accorded vocation from a religious perspective—a calling of God and community. The standards of success involving such rewards as income, prestige, and status would need to change. One would not have arrived when one was able to buy a certain kind of automobile, to live in a certain area of the city, to enjoy leisure in a certain way, or to send one's children to certain schools. Freedom would not be defined by the amount of money one makes. Power to achieve would not come only through one's individual actions. As Michaelson concluded, "There is much power in a meaningful philosophy of work and vocation, but its real value depends upon what it stresses as the sources of motivation and the goals of work" (p. 154).

What has been gained by this historical review as a means of understanding the contrasting perspectives of Dewey and Snedden on the meaning of vocation in the context of vocational education? Dewey seems to be using the word "vocation" in a larger sense, in a way more like that used by the early leaders of the Protestant Reformation. As Dewey states, all of life is a vocation, and individuals have several subvocations that together make a composite. Snedden, on the other hand, seems to be attaching a meaning to vocation which is closer to that of ordinary work. His perspective seems to acknowledge the futility of attempting to revive the earlier religious notion of vocation (in view of specialization) and particularly the negligible chance of doing so through vocational education.

Relation of Vocation(al) and Ordinary Work

Knowing how the two perspectives of vocation and ordinary work came to have meaning historically still leaves questions unresolved. What is the proper relationship between the two perspectives? Some insight into this issue is provided by Frankena (1976) who addresses the philosophy of vocation, particularly from an ethical perspective. For Frankena, vocation has a social function that ideally would combine

Green's (1968) ideas of a job as "a service by which one makes a living, if one needs to" (Frankena, 1976, p. 396)—doing some of society's chores—and the idea of work as "an area of activity in which one finds identity, meaning, worth, or sense of achievement" (pp. 397-398). Although Green suggested that these may be two separate activities for many people, Frankena suggested that ideally they would be congruent.

Frankena distinguished vocation as divine calling from vocation as ordinary work by identifying the former as a supervocation and the latter simply as vocation. He also distinguished a person's actual vocation (the vocation one has) from true vocation (the vocation one should ideally have). He developed four different conceptions of the proper relation of vocation to supervocation: (1) One should pursue one's supervocation without having any particular vocation—the supervocation is pursued in everything one does; (2) one's supervocation should be pursued in one's vocation—the particular vocation is merely a matter of circumstances or a setting; one should work at one's vocation in such a way that one does as much as possible to serve one's supervocation and does nothing inconsistent with that supervocation; (3) one has a vocation and pursues one's supervocation through that vocation—one's supervocation is pursued wholly through one's vocation; the nature of one's vocation reveals a great deal about one's supervocation; and (4) one has a vocation and pursues one's supervocation through that vocation but one's vocation is only one of the things one does to fulfill that supervocation; one's duties in a vocation may at times be determined by the demands of the vocation and not necessarily by one's supervocation; vocation is important but not as important to all of life as it is in 1-3 (p. 400). Frankena uses several dimensions in distinguishing his proposed alternative relationships of vocational and supervocational. These involve (1) whether vocations actually exist (as a primary and distinguishing social role), (2) whether a vocation is one's only social role, and (3) the degree of control exercised by supervocation over vocation.

In answering the question which of these four relations is ethically most acceptable, Frankena concluded that the answer depends largely on the assumed nature of the supervocation. He posed four main conceptions of the supervocation ("vocation of man"): (1) to love or serve God, (2) to serve society, the state, or a certain class, (3) to be moral, to live by the principles, ends, or values of morality, and (4) to serve one's self in some sense. He combined the first and second under either the third or fourth and so ultimately the real choice is "between or somehow combine (1) morality and its requirements and/or (2) the pursuit of the good life, which I take to be the life one would

prefer if one were clear-headed, logical, and fully knowledgeable about oneself and the world" (p. 401).

Using these two assumptions about the goal of the supervocation, Frankena assessed the potential merits of his four theories or conceptions of the relation of supervocation to vocation. He rejected the first theory primarily for moral reasons. He argued, "At least for most people, having one (a vocation) is necessary for having a living, for not being dependent on, or a burden to, others, for having the means needed to do what one morally ought to do, or for doing one's fair share of the work needed by society" (p. 403).

The third theory, which implies that one has a vocation and one should be wholly devoted to it as the only way of pursuing one's supervocation, Frankena rejected outright. "It simply is difficult to conceive of a vocation that is such as to include all of one's moral activities and/or all of the best life one is capable of—such as to determine all of one's moral duties and/or all of what is good for one. Even if there are some vocations of which this is true, there are surely many of which it is not" (p. 404).

In choosing between the second and fourth theories, which involve both supervocations and vocations with differences in degree of control over activities in the vocation by the supervocation, Frankena concluded that some form of the fourth theory is most acceptable—pursuing one's supervocation through one's vocation. The reasoning is that one's vocation is likely to

> lay certain requirements upon one that are not directly laid upon one by one's SV (super-vocation), whatever this is, and fulfilling these requirements is likewise bound to make a difference in one's actions and experiences that is not derived from one's SV, a difference in what one should do or in the good one will enjoy or attain . . . what one does or experiences cannot then be what one would do or experience if one were pursuing one's SV apart from any vocation, and the view must admit that in some sense it is right that this should be so. (p. 405)

In making this decision, Frankena seemed to be saying that at times, although not at most times, one may need to act for reasons of vocation against the guidance of supervocation. From this perspective, he argued that

> the vocation one should have—one's true vocation—is the vocation in which, so far as possible, one has the best life one is capable of in the non-moral sense and leads to as good a life in the moral sense as one could or would in any other vocation one has the capacity to pursue. This means

> . . . that one's ideal or true vocation depends on considerations about one's desires, interests, needs or wants and about one's abilities and capacities, as well as on moral considerations. (p. 406)

When there is conflict between the good life and the moral life, Frankena leans toward giving priority to the good life since he sees it as a basis for the question, "Why should I be moral?" Relative to education, he concluded that "the education of human beings must to a significant extent be vocational, though not entirely so" (p. 408). His reasoning was that one's supervocation requires one to have a vocation. However, education should not be entirely vocational because individuals must be prepared to pursue their supervocations in other ways as well and to freely and wisely choose a vocation.

What Frankena seemed to be advising relative to the questions arising from an examination of the early history and views of Dewey was that one's vocation should not be considered all of one's life activities. Dewey's idea that the ultimate vocation is living is really a reference to supervocation not to vocation. Although Frankena did not expand on this point, he seemed to imply that at times it is in the interest of one's pursuit of the good life (as he defined it) to act against the moral dictates of one's supervocation. One is left to consider in what situations this might be appropriate. Perhaps those who work in a munitions factory or a nuclear power plant are examples. What is evident is that one's vocational activities cannot and should not be separate from those of one's supervocation. One's role as a citizen must carry over into one's vocation if that vocation is to contribute to the good and moral life.

Vocation(al) as a Source of Life's Meaning

Concerning the loss of meaning to vocation caused by separating ordinary work from the original meaning of vocation, described above as the American Gospel of Work, Marx provides insights. He notes the following in his *Economic and Philosophic Manuscripts of 1844*:

> Labour produces not only commodities; it produces itself and the worker as a commodity—and does so in the proportion in which it produces commodities generally. This fact expresses merely that the object which labour produces—labour's product—confronts it as something alien, as a power independent of the producer. The product of labour is labour which has been congealed in an object, which has become material: it is the objectification of labour. Labour's realization is its objectification. In the conditions dealt with by political economy this realization of labour appears as loss of reality for the workers; objectification as loss of the object and object-bondage; appropriation as estrangement, as alienation. (pp. 71-72)

As the workers' self-concepts are made real in their work, people are objectified (duplicated); the self-concept (intellectually and actively) can be sensed and intellectually and physically examined. Workers can see the world they are creating. The result of examination is that workers do not value what is seen which distances them from their work. As Marx commented, "In luring away from man the object of his production, therefore, estranged labour tears from him his species life, his real species objectivity, and transforms his advantage over animals into the disadvantage that his inorganic body, nature, is taken from him" (pp. 76-77).

In examining this issue, Braverman (1974) added another source of alienation or lack of meaning in one's vocation. Conception has been separated from execution in the American workplace. In distinguishing between animal and human labor, Braverman noted

> A spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. . . . He not only effects a change of form in the materials in which he works, but he also realizes a purpose of his own that gives the law to his *modus operandi*, and to which he must subordinate his will. (pp. 45-46)

By separating conception from execution in the workplace, the worker's purpose is thwarted or, worse, even discouraged from developing. Work as purposive action realized through action and guided by intelligence is not allowed to take place. The culprit is often specialization in work roles for the purpose of gaining efficiency (at least in the short run) in production.

As a further consequence, workers alienate themselves from others. Again we turn to Marx (1844):

> An immediate consequence of the fact that man is estranged from the product of his labour, from his life-activity, from his species being is the estrangement of man from man. If a man is confronted by himself, he is confronted by the other man. What applies to a man's relation to his work, to the product of his labour and to himself, also holds of a man's relation to the other man, and to the other man's labour and object of labour. (p. 77)

This social separation from other people and the difficulty of bringing people back together, particularly in a new cultural context that stresses rugged individualism, is discussed by Hardin (1977) in *The Tragedy of the Commons*. Workers strive daily as independent entities to obtain the greatest possible extrinsic rewards from their work,

with no one being concerned about the overall impact of these actions on each worker, which turns out to be negative. As Hardin noted, "Each man is locked into a system that compels him to increase his herd (share) without limit—in a world that is limited" (p. 20).

A significant shortcoming of Marx's view is that he limits his focus to the economic sector and ordinary work in contrast to all the activities of an individual's life (e.g., family, leisure, religion). The objectification of the individual is discussed primarily in the paid work role. Rockmore (1978) comments, "what is relatively lacking is adequate consideration of man's noneconomic activity, the whole realm of which falls under the category of superstructure, a realm in which Marx after all displayed little interest. In this respect, one must wonder if Marx has not finally put the horse first, but forgotten the cart" (p. 71).

Nevertheless, Marx's notion of the worker's product as an objectification of the worker's self-concept, an idea also described by Aristotle, is insightful in making explicit the aesthetic characteristics of work and vocation. Through work one is able to appreciate or depreciate one's self as might be done with a work of art. Wartofsky (1975) expressed the value of this conception in his critique of the false contrast of art and technology. By way of introduction, Wartofsky noted

> To the extent that the mass of men are required to become mere production machines, in order to "preserve their being," to that extent a society has become dehumanized, as the cost of its self-preservation. . . . Yet to surrender human labor, work, production of the very means of one's existence to the level of dull routine, or to work as a necessary evil, seems to admit that life itself can be preserved only at the expense of the spirit; or worse yet, that one person's spiritual freedom from toil can be purchased only at the expense of another person's labor. (p. 175)

He cautioned lest "we forget that human beings make things for human use. . . . And so, we forget that people become human, by means of their work, just as they may become dehumanized by it" (p. 176). Wartofsky suggests that the dichotomy of art and technology, as of freedom and necessity or aesthetic and practical, is false. The consideration of art adds to education (and to work)

> an exploration into the properties and potentialities of a medium, first; for color, shapes, movement, sound, language itself, are malleable, manipulable, and resistant, and the exploration of their possibilities is a piece of juvenile education without which fingers, eyes, ears, and limbs will remain undeveloped. More over, the medium offers scope to the imagination. For art is second, an expression of the possibilities of the imagination. It is a search for precise expression, for adequacy in the

> presentation and representation of a feeling, an idea, an image . . . without it, the capacities of people for technical skill and empathetic understanding of the materials of their world will remain cramped and debased. (p. 180)

A second benefit to the consideration of art is that it

> involves delight, or enjoyment or pleasure in its achievement. But this is not simply an argument for the value of pleasure; rather, it involves the social education of the child (and worker), to the community of shared feelings, shared delight. The appreciation of art is a profound mode of social feeling, of the appreciation of other people. This is a subtle matter. For it is not simply that in viewing a great work of art, or having great music, we are awed by a Michelangelo or a Beethoven. We are rather awed by the art work itself; we delight in it, exercise and expand our sensibilities in the experience of it, enlarge our intellectual scope by the demands it makes on our understanding. . . . Yet, in the aesthetic experience of the work of art, we are in concourse with others; more than that, we are shaped, in our sensibilities, and in the modes of our response, to the cultural inheritance of the species, across time and space and in a communion as profoundly human as the sexual and religious. . . . The lure of our enjoyment takes us beyond ourselves, just as love and faith do, and helps to make us species-beings, not mere atoms in a crowd. (p. 181)

In these two ways, then, attention to the aesthetics of work can render work less alienating and ensure that it provides more meaning to life. When the aesthetic is combined with the technical, imagination becomes potent and skill becomes enabling. As Wartofsky concluded, "People need art; and people need technology. The world needs to be made aesthetic, humanized for mankind. But the conquest of war, of disease, of hunger demands the education of a generation technologically capable of effecting such changes, and morally and aesthetically committed to them" (p. 185). Attention to the meaning of vocation in one's life and its relationship to aesthetics is inextricably linked to the ethical issues discussed in the previous section. Although specialization in vocation may be a reality in the workplace, it must not negate concern for the potential aesthetic role of ordinary work in giving meaning to life or the potential meaning inherent in the interaction of one's several social roles.

The aesthetic dimensions of vocation (and the aesthetic possibilities in vocational education) have been further analyzed by Rehm (1987a, 1987b, 1990a, 1990b). After exploring the meaning of vocation as a spiritual call to unity, a call to worldly good, and a personal fulfillment—all with implications for the qualities of vocations—Rehm (1987a) suggests there are two basic dimensions necessary to a vocation, both having aesthetic implications.

> (a) the spiritual quality . . . to detect relations within the self and the world and (b) the active process of challenge and manifestation of inner qualities "called for by the world." (p. 61)

The first dimension of vocation, seeing a "web of relations" generates attention to love (interest in others) and self-knowledge (talents and interests). The second dimension of "directing good in action" focuses attention on the good (making a positive contribution to society), self-development (gaining a sense of purpose and one's "gifts"), and freedom and responsibility (ability to test capabilities, "hearing" the call).

Rehm (1987a) sees vocations as opportunities to "awaken to new possibilities of meaning and freedom in everyday life" (p. 68). Because vocation is more a set of questions relating to the above dimensions than a prepared answer, the aesthetic imagination is important in visualizing the future of one's vocation. As she notes, "Vocations, in their personal freedom for directions, encourage breaking with ordinariness. Vocations, in relation to interconnections between people, encourage variety and form. Vocations, in their directions and search for meaning, demand 'wide awakeness, attentiveness, and care' in order to 'discover multiple ways' to perform good and render love" (p. 69). The aesthetic possibilities and characteristics of vocations are made quite explicit as she links aesthetic imagination and vocation. Vocation's unique expressions involve using senses and values, harmonizing tensions, balancing contrasts, weaving details into larger wholes, playing out ideas, searching for the good, and expressing one's self.

Summary

Several propositions are derived from the above analysis that serve as a basis for guiding the selection of subject matter or content appropriate to education relating to the vocational aspects of life. The propositions are

- Vocations are both social and economic roles by which one contributes to and benefits from the shared way of life in a society.
- In the twentieth-century context, vocations refer essentially to responsibilities in work and family-life roles.
- Individuals often have more than one vocation at the same time; the interaction of these vocations can be as significant as their separate effects.

- Selection of vocations and fulfillment of responsibility in vocations should be governed by ethical principles.
- Vocations, through the aesthetics of their responsibilities, should give positive meaning to life.

Vocational Development

Vocational development embraces many aspects of an individual's well-being and, therefore, has been studied by numerous educators, economists, anthropologists, sociologists, and psychologists. The review of vocational development theory and research presented in the first part of this section was written by Steve R. Scholl and is a part of his Ph.D. dissertation entitled *Nature of Vocational Development Among Secondary Vocational Education Students* (1988). These researchers have developed many theories and proposed a variety of conceptual models, giving the body of vocational development literature a broad, diverse, and interdisciplinary base. By reviewing existing models and theories, the broad context of vocational development can be synthesized and described, forming a guiding framework for considering subject matter that is appropriate for vocational education.

Several different approaches can be used to review vocational development theories. A chronological approach would consider the theories according to the time when they were formulated. A breakthrough approach would consider the theories according to their importance which, to a large extent, reflects theories that have received the most scrutiny over time. A third approach would involve using or creating a taxonomy to provide a framework in which to consider the theories and gain insight into relationships that exist in and between them.

The taxonomy approach was used in this review because the structure it provides assists in conceptualizing vocational development and the implications for the subject matter of vocational education. Five comprehensive taxonomies of vocational development have been recognized (Crites, 1969, 1981; Osipow, 1983; Super, 1981; Tolbert, 1980) which together classify most of the existing vocational development theories.

Super's (1981) taxonomy includes a more extensive description and analysis of theoretical relationships than do the other four taxonomies. The various vocational development theories are introduced within three general categories, followed by detailed descriptions of the subcategories of each theory. The categories incorporate the broad, general simplicity of Crites' (1969) and Osipow's (1983) taxonomies as well as the specificity of Tolbert's (1980).

Although Super's taxonomy is useful, it does have limitations. One obvious shortcoming is its failure to include the contributions of Krumboltz (1979) whose behavioral theory is classified in the other recent taxonomies. A second minor problem is Super's use of dissimilar general categories. Two categories—Matching and Decision-Making—denote processes under the individual's control. However, the Developmental category covers a process usually associated with and determined by age and maturity. Despite these problems, Super's taxonomy represents a significant improvement over other taxonomies owing to its extensive differentiation of the many vocational developmental theories.

The taxonomy shown in Table 1 is Super's (1981) classification of important conceptual contributions to vocational development and contains a personal review and classification of his own work. This latter aspect makes his taxonomy particularly valuable because it includes his latest theoretical conceptualizations of the vocational development process. In addition, it reclassifies his earlier work into a category different from that to which it was assigned in the Crites (1969, 1981), Osipow (1983), and Tolbert (1980) taxonomies.

Super's taxonomy, like those of Osipow and Tolbert, is a function-based classification in contrast to the discipline-based system of Crites. Like Crites, however, Super simplifies the number of major classifications, using only three: matching, developmental, and decision-making. The unique aspect of Super's classification is his system of subcategories. Super identifies a second and, in some cases, a third level of functional, subcategory titles. For example, he identifies three subcategories of matching theories: differential, situational, and phenomenological, and seven subdivisions of these subcategories.

The three principal categories identify the broad similarities of the various theories. Simultaneously, the subcategories preserve the unique contributions of and

differences between the theories. However, Super admits that "any classification scheme is inevitably simpler than that which it attempts briefly to depict" because "in reality, purity is rarely found" (p. 8). He developed his classification from many previously discussed attempts and that his purpose in presenting it is to move "towards a generally accepted and useful theory of career development" (p. 8).

Table 1

Super's (1981) Taxonomy of Approaches to Occupational Choice and Career Development

General Category	Subcategory
Matching	Differential
	Aptitude
	Personality
	Situational
	Structural
	Context
	Socialization
	Phenomenological
	Self-Concept
	Congruence
Developmental	Life State and Identification
	Life-Span, Life-Space
	Stage-and-Determinant
	Path Models
	Regression
Career Decision-Making	Process
	Style
	Process-Style-Situation

Matching Theories

Super (1981) describes three types of theories that match people and occupations: differential, situational, and phenomenological. Differential theories focus on aptitudes and personality traits. Situational theories address the socioeconomic structure, social context, and socialization process. The major aspects of phenomenological theories related to self-concepts and congruence. However, all matching theories involve the assumption "that individuals make only one choice of, are once selected for, or are consistently conveyed or impelled by personal or situational characteristics toward an occupation which is in some way appropriate to their personal or social characteristics" (p. 9).

Differential Theories

Current use of the General Aptitude Test Battery (GATB), the *Occupational Outlook Handbook*, and the *Dictionary of Occupational Titles* is a continuation of Parsons' (1909) trait-factor suggestions. The limitations of individual differences that Parsons assumed in 1909 were accepted by vocational counselors in the late 1940s through their use of the GATB. Parsons' (1909) theory assumes that there is a right occupation for every individual based upon that individual's personal characteristics. Crites (1969) explains Parsons' view:

> The logic of this view point is as follows: Because individuals differ in their aptitudes, interests and personalities, and because occupations require varying amounts and kinds of these traits and factors, different individuals choose to enter different occupations. (p. 90)

Parsons' suggestions lead to the belief that a match will occur as an individual compares personal capabilities and dispositions with those required for occupations. Theoretically, he or she will then select an occupation that best matches. Three assumptions, fundamental to this theory, propose that (1) each worker is best suited for a particular type of work; (2) there is more difference between groups than within groups of workers in different occupations; and (3) vocational adjustment varies according to the agreement between worker characteristics and occupational context. The vocational development theories of Roe (1956) and Hoppock (1967) take this differential view of matching individual and occupation.

Situational Theories

Super's second matching category describes situational approaches in which it is assumed that structural, contextual, or economic aspects of socialization act to differentiate individuals. Super states that the structural approach to occupational choice is documented in many American studies, including Hollingshead's (1949) investigation of Elmtown's youth and Sewell and Hauser's (1975) study of the effects of the structure of society on education, as well as in Roberts' (1981) work in Great Britain. Roberts' (1981) social-structural theory states that individuals exist on rungs of a social ladder. He suggests that from their position they can move laterally to other parts of the world of work lattice, but it is unlikely they will move vertically. Roberts argues that social class determines the amount of education and peer values and affects occupational level, teacher expectations, and pupil aspirations. Thus, vocational development is a process that unfolds along predetermined lines. Indeed, it is a view of career pathways Super (1981) describes as "conveyor belts in an economic assembly line" (p. 14).

Another highly contextual approach to vocational development is the work of Krumboltz (1979) which attempts to "identify and explicate the personal and environmental events that shape individuals' decisions about careers made at major choice points" (p. 143). He identifies the development of career decision-making and other task approach skills which he describes as the result of the "interaction of genetic endowment and learning experiences in a cultural context" (p. 140). The theory he developed was an attempt to "show how specific occupational entry behaviors result from the interaction of skills and preferences generated in the past with current cultural, social and economic forces" (p. 140).

Phenomenological Theories

Super (1981) offers his own earlier work as an example of an "attempt to relate personal and situational data . . . using phenomenological or self-concept theory" (p. 17). He admits to becoming entrapped by the matching concept, noting that this "formulation was simple, stating that occupational choice represents an attempt to implement one's self-concept in an occupation, and that this is done by matching one's picture of oneself against one's picture of people in occupations that one knows and in which one is interested" (p. 17). In retrospect, Super acknowledges that these popular theories of vocational development are not as adequate as they seemed in the 1960s. He recognizes their theoretical simplicity, the employment of an easily used methodology, and the intrinsic appeal to a society in which self-actualization was a "widely accepted objective."

Another phenomenological approach described by Super is Holland's congruence theory (1973). Called a "typological theory of vocational choice" (p. 113) by Crites (1969), the theory seeks to "explain vocational behavior and suggest practical ideas to help . . . people select jobs, change jobs and attain vocational satisfaction" (p. 1). In Holland's formulation, people are characterized by their preference for six personality types and the environments in which they work are characterized by their resemblance to six model environments. Holland predicts that the vocational behavior of specific individuals in specific environments occurs as a result of certain assumed relationships between personality types and environmental models.

Developmental Theories

Super explains that dissatisfaction with matching theories caused vocational development theorists to consider the context and evolution of the vocational development process beginning with an individual's early cognition. He identifies the theories that resulted from those considerations as developmental theories in which an individual's development is considered a crucial factor in the making of vocational decisions. Super delineates three categories of theories: life-stage and identification theories; life-span, life-space approaches; and stage and determinant models.

Life-Stage and Identification Theories

Ginzberg, Ginzberg, Axelrad, and Herma (1951) developed a life-stage, identification theory. They interviewed adolescents and concluded that there are three principal aspects of vocational development. First, vocational development is thought to be a process rather than a single event. Second, the process is considered to be irreversible, caused largely by an individual's maturation. Third, the culmination of the process during late adolescence and early adulthood is thought to be a trade-off or adjustment between an individual's needs and desires and the realities of the surrounding socioeconomic context.

Much later, Ginzberg (1972) revised the irreversibility aspect of this theory. He retracted it because education and employment patterns demonstrate the lifelong nature of the process that leads individuals to redefine their careers in midlife. He acknowledged that when contextual restraints such as parental values and education, low motivational levels, and educational inadequacies are overcome, career interests and the choice process can be redefined and redirected, reversing previous directions and activities. Super

(1981) credits this work as directing the attention of those concerned with understanding vocational development to the fact that "occupational choice is an evolving rather than a seemingly once-and-forever matching" (p. 25).

Life-Span and Life-Space Approaches

Super offers his own conceptualization (Super, 1980; Super & Kidd, 1979) of vocational development as an example of the life-span, life-space approach. This work is a direct extension of his earlier efforts, including his concepts of life stages, development, the role of abilities and interests, and self- and situational concepts. Super's vocational development stages (1957, pp. 40-41) are

1. *Growth Stage* (Birth-14)
   Self-concept develops through identification with key figures in family and in school; needs and fantasy are dominant early in this stage; interest and capacity become more important in this stage with increasing social participation and reality-testing.

2. *Exploration Stage* (15-24)
   Self-examination, role tryouts, and occupational exploration take place in school, leisure activities, and part-time work.

3. *Establishment Stage* (25-44)
   Having found an appropriate field, effort is put forth to make a permanent place in it. There may be some trial early in this stage, with consequent shifting, but establishment may begin without trial, especially in the professions.

4. *Maintenance Stage* (45-64)
   Having made a place in the world of work, the concern is now to hold it. Little new ground is broken, but there is continuation along established lines.

5. *Decline Stage* (65 on)
   As physical and mental powers decline, work activity changes and in due course ceases. New roles must be developed; first that of selective participant and then that of observer rather than participant.

Super's theory assumes that the stages are qualitatively different from each other and that different developmental tasks need to be performed at each stage to constitute vocational maturity at that stage.

Stage and Determinant Theories

Stage and determinant models are developmental models focusing principally on "both stages and determinants." Super's examples of these theories are his early theories as well as those of Ginzberg et al. (1951), Miller and Form (1951), and Tiedeman and O'Hara (1963). As an example, Tiedeman (1961) and Tiedeman and O'Hara (1963) developed a model less restricted to stages governed by age and more closely related to the determinants of an individual's development. Tiedeman hypothesizes that vocational development occurs during two periods comprising seven stages. The mechanisms by which an individual moves between the different stages and periods are two aspects of self-development: differentiation and integration. Differentiation is an individual's ability to distinguish between stimuli which include conditions and ideas as well as external stimuli. Integration includes "extrapolation of the whole from the parts" (Crites, 1969, p. 104).

Career Decision-Making Theories

Super acknowledges that there have always been theories of vocational development focusing primarily on the decision-making aspect of the process, especially after "publication of Gelatt's (1962), Hilton's (1962), and Vroom's (1964) theoretical discussions dealing specifically with career or vocational decision-making" (p. 45). He differentiates these theories into three categories: process models, style models, and process-style-situation models.

An example of the process model is Gelatt's (1962) use as a central component of the strategy by which individuals choose a course of action. He proposes that (1) individuals estimate the possible actions and the probabilities of the outcomes; (2) consider the desirability of the outcomes; and (3) make a decision using an evaluation criterion. If a decision is investigatory, the process is repeated again until a final decision is reached.

Super cites Arroba (1977) as an example of a style model. Arroba identifies three basic groups of decision styles among men of varying ages. Depending upon the situation, the styles of compliance, intuition, and logic are used in career decision-making. Although important decisions are usually associated with the logical style, the three styles are almost equally likely to be used by a given (male) individual.

Super describes only one attempt to combine the types of decision models into a process-style-situation model. Harren's (1978) model "provides for decision-making process, decision-maker characteristics which include self-concepts and styles, developmental tasks, and decision-making situations" (p. 48). Harren describes a process of four sequential steps—awareness, planning, commitment, and implementation—which is not substantiated empirically. Although Harren's work is not as complete as some of the previous models, Super praises it as the "essence of career development" (p. 50) and regards decision-making theories as the next step in understanding vocational development. Presently, these theories are evolving into what he considers to be the global theories needed to more completely explain vocational development.

Summary of Theoretical Approaches

The term "vocational development" has been used for almost forty years by researchers and educators. As a concept, it has been studied during that time by significantly different theoretical approaches. The resulting literature is broad and diverse but contains no definition of vocational development that everyone can agree upon and accept.

The use of Super's taxonomy provided clarification of three distinct approaches to vocational development theory: trait and factor, developmental/phenomenological, and cognitive. To a great extent, these approaches have occurred in waves similar to those described by Toffler (1980) in *The Third Wave*. Beginning early in the twentieth century with Parsons (1909), trait-factor theory became widely popular forming the first wave of vocational development theories. This approach steadily gained support and acceptance during the first half of the century. Indeed, many of today's vocational counselors continue to base much of their client work on trait-factor theory.

At the time this first wave of vocational development theory was dominant, a second radically different wave was gathering strength. Approached from the developmental/phenomenological perspective, it reflected the influence of Buehler's (1933) work on developmental stages, as well as a study by Carter (1940) on the development of "vocational attitudes." During the 1950s, this second wave of theory became popular and remained the dominant accepted approach for several years during which time Super proposed the term "vocational development."

This second wave of theory receded in importance as a cognitive-based third wave found supporters in the 1960s and 1970s. Rooted in cognitive-developmental psychology, this newest approach includes both decision and developmental theories. Currently, the three types of theories are being scrutinized, a result of widespread, hands-on use, as well as research. Also, hybrid theories, spawned by interactions among the three kinds of theories, are now being explored.

Based on this review of vocational development theories, the following three characteristics or propositions appear to be viable:

1. Vocational development is a lifelong, ongoing process.

2. Vocational development is manifest as a series of stages.

3. Vocational development is an integral part of general development.

Considering vocational development as a lifelong process recognizes the temporal nature of vocational development which is thought of as a process involving events that continue to occur throughout an individual's lifetime (Super, 1980). As a process, it can be compared to motion-picture film frames. When projected at a certain speed, film frames indicate movement, building upon each other to tell a story. An individual's vocational development also moves, over time, to complete a story or lifetime history. Evidence of this vocational development process is manifest in the individual's evolving knowledge of work and specific work activities, knowledge of self (Burgoyne, 1979; Kidd, 1984), identification with work, and the ability to engage in work activities (Wijting, Arnold, & Conrad, 1977).

The stages through which vocational development is manifest occur at different times for each individual, owing to personality, experiences, genetics, and other variables. Implicit in the assumption that individuals move through different stages is the idea that they will conceptualize many aspects of their lives—including their own identity, their work or vocational activities, and the role of work or vocation in their lives—differently. Hence, vocational development can be viewed as a life-long process, evolving through stages.

The third characteristic of vocational development leads to a recognition of the dynamic linkage of all aspects or dimensions of an individual's life. An individual's

general development (i.e., cognitive, social, and physical) is a related, synchronous process that occurs continuously and involves many dimensions of life, including vocational development (Vondracek, Lerner, & Schulenberg, 1983). Individuals experience vocational development as they learn about themselves and their abilities, as they conceptualize different work and as they become involved in activities that simulate these concepts (Krumboltz, 1979; Super, 1957, 1963, 1980, 1981).

As part of the process, individuals differentiate and compare their unique capabilities and self-image to various work roles and imagine themselves performing related activities (Dudley & Tiedeman, 1977; Tiedeman & O'Hara, 1963). During this dynamic process of comparison, individuals are developing, often by using a different method of conceptualizing problems of self and situations (Guardo & Bohan, 1971; Markus, 1977; Montemayor & Eisen, 1977; Rosenberg, 1979). In other words, they see themselves and their place in society through new eyes. Vocational development, therefore, seems to be a dynamic, stage-based, evolving process that integrates all the aspects of individuals' lives into an understanding of the individuals' interactions with their vocation.

Some Concerns about Vocational Development Theory

In the context of this report, several concerns about vocational development theory are raised. These concerns focus particularly on the limitations of current theory as the basis for describing and organizing the subject matter of vocational education.

First, vocational development conceived of as a set of orderly stages may be based largely on a white, middle-class, male experience in the culture of the United States. These stages and the vocational tasks relevant to each stage may simply not be appropriate when considering the subject matter of vocational education for a culturally diverse, sexually more equitable, and rapidly changing society. Perhaps the idea of vocational development as cyclical, with a return to previous stages several times in one's life time and a spiraling when returning to perennial issues with more experience and knowledge, should become the norm rather than the exception.

Second, vocational development, more recently referred to as career development, focuses only on work life as the vocational aspect of life with little attention (except as an influencing variable) on family life. Family life has been examined from a developmental perspective (Duvall, 1971), but this research is rarely integrated into the

vocational development literature. As noted above, when it is included, the tack taken is one of balancing work and family rather than considering them equally important areas of vocational development.

Third, vocational development as presently conceived almost totally ignores the developmental aspects of learning skills that are specific to particular types of work and family roles. The skills in question are those that make for a competent nurse, automobile mechanic, accountant, or father. The extensive literature on developmental phases and related educational strategies in moving from novice to expert (Thomas, Cooke, & Johnson, 1988) needs to be incorporated into vocational development theories to provide a more comprehensive framework for guiding the practice and subject matter of vocational education.

Fourth, vocational development theory tends to give the impression that the individual is adapting to the environment rather than being critical and proactive in changing the environment to create a more desirable state of affairs in our society. Missing all too often is the development in the individual of a well-grounded normative perspective on what the desired condition of the vocational aspects of one's life should be, how to critically interpret and challenge present situations, and what actions to take to improve matters.

Although vocational development theory is a key concept in thinking about the subject matter of vocational education, these four concerns about the current state of vocational development theory bear keeping in mind. As vocational development research and theory addresses these concerns in the future, it can serve as a more powerful force in shaping the subject matter of vocational education. In a review and critique of vocational (career) development theory from a chronological perspective, Sonnenfeld and Kotter (1982) conclude, "the most notable trend in this evolutionary process is toward an increasingly dynamic theory" (p. 34) in which both the individual and the environment are viewed as dynamic and changing rather than static. In their analysis, they characterize the most recent research and theory as a "life cycle approach" (following the "career stage approach"). The focus is more on the adult life experience; individuals are viewed as growing and developing until death; and work, family (nonwork), and forces internal to the individual are all viewed as very influential to career outcomes, many of which are not settled until late in life. The perspective taken in the

life cycle approach shows promise of dealing more directly with some of the concerns noted above.

Vocational Education

The concept of vocational education proposed in this report draws its meaning from the preceding discussion concerning an educated person, education, vocation(al), and vocational development. More specifically, a review of the major propositions developed about each of these prior concepts is used to inform and serve as a basis for a proposed meaning of vocational education. This meaning of vocational education is then used to guide the discussion that follows as it focuses on the subject matter of vocational education.

Major Underlying Propositions

To review, the major propositions about prior concepts were as follows:

Educated person

- An educated person is always engaged with something that gives meaning and zest to living.
- An educated person has a broad understanding of a phenomenon and its connection to a coherent pattern of life as well as being skilled—is able to address why as well as how.
- An educated person has a way of looking at things that involves commitment, consistency, and caring about standards and actions that contribute to a good and just life and society.
- An educated person has a desired series of capacities and the propensity and capability to demonstrate them when needed.
- An educated person has practical intelligence as a means to effectively handle the complexity and challenge of everyday life, which requires clear attention to aims, context, and consequences of action.
- Educated persons exploit their human potential as evolving capacity, propensity, and capability in relation to desired social conditions and values.

Education

- For education to lead to the intellectual activity of understanding, a prerequisite to insight, innovation, and appreciation of what is learned must be personalized; to be personalized, education must use the aesthetic possibilities in present as well as future experiences.

- For education to lead to a sense of power and control over one's life and responsibility to others, prerequisites to a democratically functioning society, the learner (and teacher) must be critical of what is learned and able to reason what is acceptable on intellectual and moral grounds.

- Education encompasses a family of activities that must meet certain norms, including being ethical in process, attentive to individual differences, and stimulating to individual development.

- Education does not lead merely toward specialization but, rather, to a changed way of looking at things, of seeing a coherent and evolving pattern in the diverse decalage of life experiences.

Vocation(al)

- Vocations are both social and economic roles by which one contributes to and benefits from the shared way of life in a society.

- In the twentieth-century context, vocations refer essentially to one's responsibilities in work and family life roles.

- Individuals often have more than one vocation at the same time; the interaction of these vocations can be as significant as their separate effects.

- Selection of vocations and fulfillment of responsibility in vocations should be governed by ethical principles.

- Vocations, through the aesthetics of their responsibilities, should give positive meaning to life.

Vocational development

- Vocational development is a lifelong, ongoing process.

- Vocational development is manifest as a series of stages.
- Vocational development is an integral part of general development.

Meaning of Vocational Education

Drawing on this base of propositions, we propose that the meaning of vocational education be *education directed toward enhancing the vocational development characteristic of an educated person*. Some salient implications of this view of vocational education are, for example, that it should be viewed as a family of processes which includes training. Vocational education should be guided by ethical, aesthetic, and technical considerations if it is to be most effective. The ultimate aim of vocational education is a fully educated person, particularly from a vocational development perspective. Currently, work and family life roles and responsibilities form essential aspects of vocational life and should, therefore, be the focus of vocational education.

In the context of vocational education, work responsibilities refer to a family of terms including job, occupation, employment, career, work, and calling or vocation. Job usually refers to a specific position in a particular business or industrial firm. As noted by Bellah, Madsen, Sullivan, Swidler, and Tipton (1985), "In the sense of a 'job,' work is a way of making money and making a living. It supports a self defined by economic success, security, and all that money can buy" (p. 66). Employment is often used interchangeably with job. Bellah et al. go on to describe other dimensions of work:

> In the sense of a "career," work traces one's progress through life by achievement and advancement in an occupation. It yields a self defined by a broader sort of success, which takes in social standing and prestige, and by a sense of expanding power and competence that renders work itself a source of self-esteem. (p. 66)

Occupation is used here as a category of jobs that have similar titles, descriptions, functions, and requirements. Moving next to calling (or vocation), Bellah et al. (1985) described it as follows:

> In the strongest sense of a "calling," work constitutes a practical ideal of activity and character that makes a person's work morally inseparable from his or her life. It subsumes the self into a community of disciplined practice and sound judgment whose activity has meaning and value in itself, not just in the output or profit that results from it. But the calling not only links a person to his or her fellow workers. A calling links a person to the larger community, a whole in which the calling of each is a contribution to the good of all. . . . The calling is a crucial link between

> the individual and the public world. Work in the sense of calling can never be merely private. (p. 66)

If one wanted to select a specific meaning of work, to start a conversation about its meaning, the description and key terms might be as provided in Table 2.

Table 2

A Meaning of Work

Meaning

- Work is a construct describing purposeful activity requiring effort which produces artifacts of economic, social, and/or personal value to individuals, institutions, and/or society. The broad pupose of work is individual and societal development.

Assumptions

- Work is an activity, as such it requires mental and/or physical action.
- Work involves effort, as such it requires exertion and trying.
- Work is purposeful, as such there is an intent to do or accomplish something; there is a goal directedness. The broad goal is full individual and societal development.
- Work produces artifacts which are characteristic products of human activities. These artifacts can be classified in different ways (e.g., goods versus services; things versus ideas) for different purposes.
- Work is valued by the individual doing it, by institutions, and/or by society. In these contexts, it has economic, social, and/or personal value; and it has intrinsic and/or extrinsic rewards. When there is divergence between the individual's, an institution's, or society's value of an individual's work, the definition of work is problematic.

Note: From Copa et al. (1985).

The other important vocational aspect of life is family responsibilities. The concepts of family, household, and home are discussed extensively by Brown (1980) who describes the family as follows:

> The family is a social organization of persons who form a unit living together in one household. As a human family, members are beings who engage in both individual and collective action. As a human organization, the family is a primary social structure in society. It is primary both in the sense of being first in the personal history of each individual and in the significance the family has in the lives of individuals and in relation to other social structures. (p. 49)

As such, family responsibilities fall to parents, children, extended family members, and other forms of co-habitation. As with work responsibilities, family responsibilities provide a sense of personal meaning and have consequences for the self and others, thereby involving moral obligations.

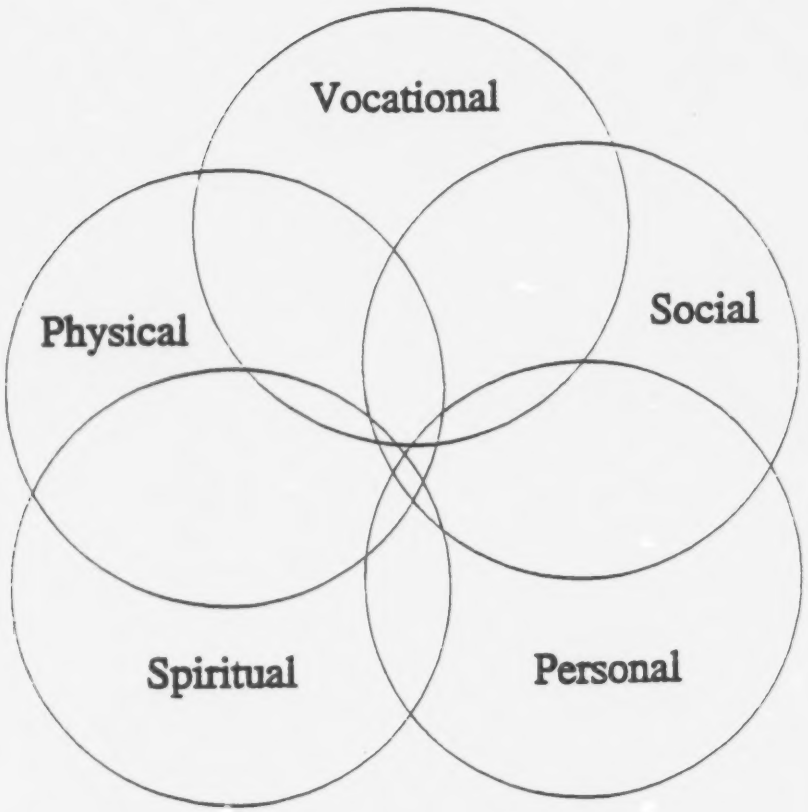
SUBJECT MATTER OF VOCATIONAL EDUCATION

In the introduction to this report, it was noted that if one was to provide a framework for the subject matter of vocational education one would first need to deal with the meaning of vocational education in terms of focus, uniqueness, content, method, and structure. Therefore, we will address each of these dimensions of the meaning of vocational education before engaging in an in-depth discussion of a framework for its subject matter.

Focus of Vocational Education

Vocational education is education that is focused on the vocational development of an educated person. Vocational development is a major component of human development. Other components of human development include spiritual, physical, social, and personal development which can have a bearing on vocational development and vice versa. The relationship of these components of development is shown in Figure 1. As is apparent in the figure, spiritual, physical, vocational, social, and personal development overlap in significant ways. In addition, the components intersect, calling for integration of learning experiences designed to enhance learning among the components.

Figure 1
Some Major Components of Human Development



Vocational development is the lifelong process of developing the capacity (i.e., caring, competence, confidence) for assuming vocational responsibilities which are the expectations for accomplishment in social and economic roles in which individuals take responsibility to provide services or produce products of value to themselves and others. All such roles, and especially work and family responsibilities, are potentially included. However, vocational roles and responsibilities in particular are characterized by caring, commitment, and connectedness to the services and products being provided or produced. Full realization of human potential in vocational responsibilities is critical to the social and economic progress of nations and the world.

A vocational developmental perspective includes attention to both short-term (i.e., entry level skills) and long-term (i.e., ability to continue to learn) needs. Vocational responsibilities include the full range of work (i.e., paid and unpaid, unskilled to very skilled) and family (i.e., child to grandparent) roles. Vocational responsibilities include responsibility for being reflective and active in changing work and family environments to enhance their effectiveness in fully realizing human potential.

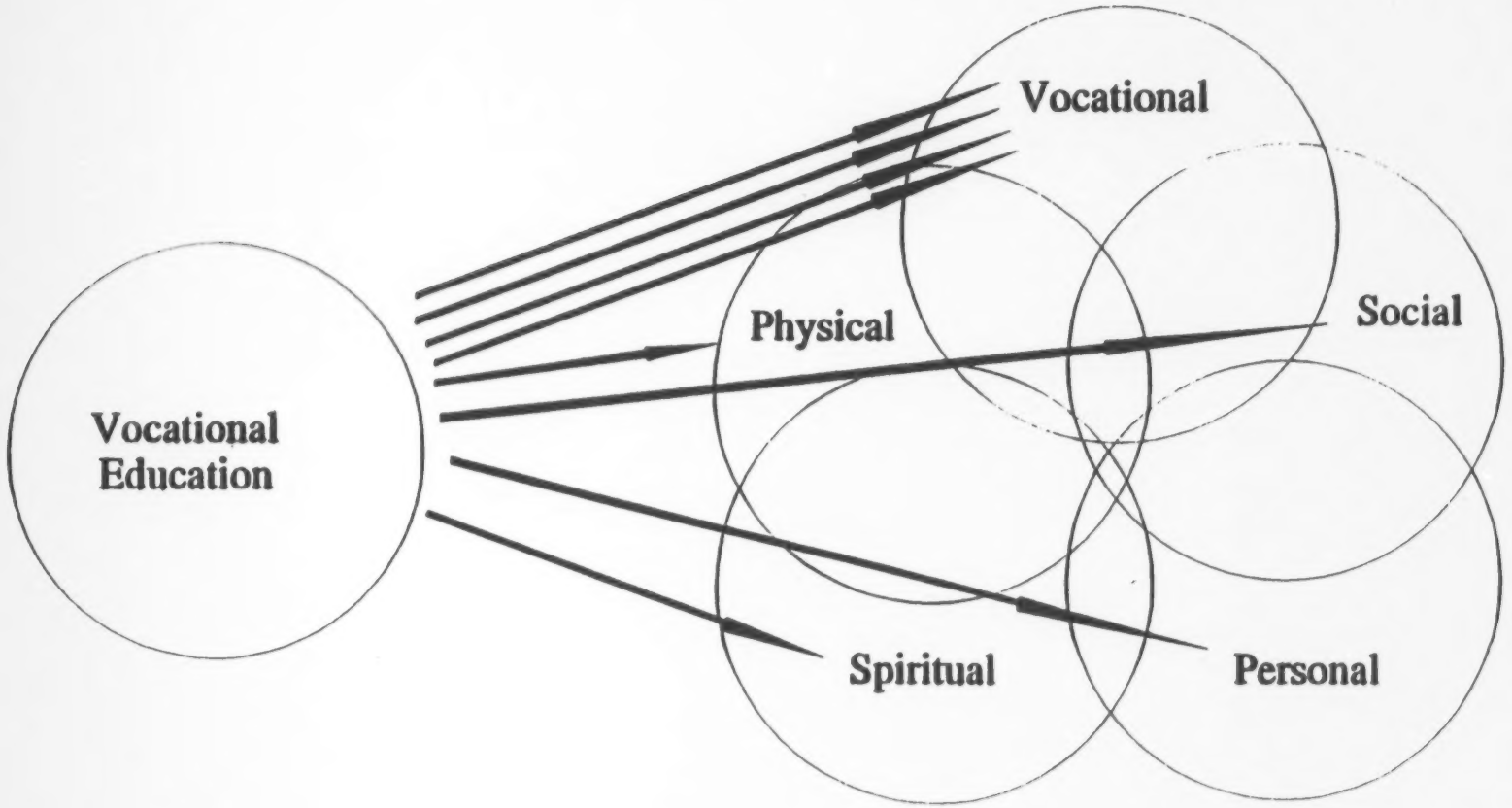
Uniqueness of Vocational Education

Learning that enhances vocational development takes place in a variety of settings, including family, school (i.e., pre-kindergarten, elementary, secondary, postsecondary), work, and other community settings. The degree to which an educational experience is directed toward vocational responsibilities can vary from general to specific, tangential to central. In some sense, all learning leads to vocational development. However, for the educational experiences typically labeled professional, technical, and vocational education, the directedness toward preparation for vocational responsibilities is central and specific (see Figure 2).

Since vocational development is a component of human development, vocational education should be a part of everyone's education. Some aspects of vocational education would be the same for all individuals; at more specialized levels, the content of the curriculum would vary in accordance with the vocational responsibilities that are of interest to the individual.

Figure 2

Unique Role of Vocational Education in Enhancing Human Development



Content of Vocational Education

Before addressing the content of vocational education, we will provide some background to support the recommendations that we will make concerning the content of vocational education.

Approach to Curriculum Development

Basic approaches to curriculum development have been advanced by several authors. Zuga (1989) has synthesized these approaches into a set of categories in the context of curriculum design in industrial arts/technology education. Eisner and Vallance (1974), in their edited book *Conflicting Conceptions of Curriculum*, use the categories of curriculum as the development of cognitive process, curriculum as technology, curriculum as consummatory experience (or self-actualization), curriculum for social reconstruction-relevance, and curriculum as academic rationalism. Orlosky and Smith (1978), also in an edited collection on *Curriculum Development*, characterize the styles of curriculum theorizing as humanistic, discipline, technology, and futuristic. McNeil (1981) in a textbook on curriculum uses the following conceptions of curriculum: humanistic, social reconstructionist, technology, and academic subjects.

If these alternative conceptions or approaches to curriculum were to be grouped in broad categories, they might appear as in Table 3 (a slight alteration of Zuga's version). Note at the bottom of the table the five different perspectives used to label and characterize the different approaches.

The structure of the disciplines approach is the most tradition-bound of the five perspectives presented. It focuses on the basic or established disciplines (i.e., history, literature, arts, economics, psychology, biology) and the structure of the knowledge base for each discipline. The emphasis is on providing access to the greatest ideas and objects created by society. This approach holds that all knowledge is not of equal value and that the most valuable knowledge is found in the established disciplines. A curriculum constructed around practical concerns not only takes time away from the study of the established disciplines, but it also dilutes their meaning.

Table 3

Approaches to Curriculum Development

Major Perspective	Structure of Disciplines	Technology	Social Reconstruction	Personal Meaning	Cognitive Process
Eisner and Vallance (1974)	Academic rationalism	Curriculum as technology	Curriculum for social reconstruction relevance	Curriculum as self-actualization	Curriculum as cognitive processes
Orlosky and Smith (1978)	Discipline	Technology	Futuristic	Humanistic	
McNeil (1981)	Academic subject	Technology	Social reconstruction	Humanistic	
Saylor, Alexander, and Lewis (1981)	Subject matter/ disciplines	Specific competencies or technology	Social functions/ activities	Individual needs and interests/ activities	Human trait processes
Wiles and Bondi (1984)	Conservative liberal arts	Educational technology/ vocational	Social reconstruction	Deschooling and humanistic	
Schubert (1986)	Subject matter	Learner outcomes and discrete tasks	Social reconstruction, activities, and cultural reproduction	Experience and Currere	
Ornstein and Hunkins (1988)	Subject-centered		Problem-centered	Learner-centered	

Note: Adapted from Zuga (1989).

The technology approach to curriculum development is concerned with the how rather than the what or why of education. The purpose is to find efficient curricular means to address predefined ends that are not viewed problematic. The focus is on how to package and present content to the learner to reach these ends. The language of the curriculum is that of industrial production, with concepts such as systems, analysis, input and output, feedback, objectives, and general classification systems for learning content such as cognitive, psychomotor, and affective. Although ostensibly value-neutral, the approach is actually highly value-laden in its acceptance of its existing goals, discounting of the role of the learner, and its assumption that instructional method can be separated from content.

The curricular approach labeled social reconstruction views education as having a significant role in social improvement. Curriculum is to be related to the important social issues of the present and the future. The approach to curriculum varies from the more conservative stance of preparing individuals to adapt to change to the more liberal perspective of preparing individuals to shape these changes—to assist in moving from what is to what should be. Personal development through learning is tied to improvements in a wider social context.

The personal meaning approach to curriculum views the individual as much more central and responsible for deciding the most important content. The goal is personal liberation; personal integrity and autonomy are seen as problematic. The curriculum is necessarily experiential in involving personal issues, concerns, and problems as the real content of instruction.

The last approach, cognitive process, focuses on curriculum as developing intellectual process and skills irrespective of any particular content to be learned. The goal is to develop thinking and problem-solving skills that are adaptable to a wide variety of situations. Attention is more on the learning process rather than on the social or personal context.

In concluding their presentation of conflicting curriculum conceptions, Eisner and Vallance (1974) describe three fallacies about curriculum development that raise important issues. The first fallacy is that learning how to learn is more important than what is learned. They suggest that the curricular approaches of technology and cognitive process are most susceptible to this fallacy. The second fallacy is the opposite, that

content is more important than how it is learned. The structure of the disciplines approach is susceptible to this false way of thinking about subject matter of the curriculum. The third fallacy is that some subject matter is universally important regardless of the characteristics of the students. Those who hold this perspective are continuously searching for the best curriculum and advocating its use for all students. The social reconstructionists and structure of the disciplines approach are particularly susceptible to this fallacy.

The point made about these fallacies seems to be that attending only to content, or the learning process, or to both content and learning independent of the learner is fraught with problems. The perspective taken in this report concerning the subject matter of vocational education combines elements from several of the approaches emphasizing social reconstruction, cognitive process, and personal meaning in conceptualizing curriculum. These approaches seem to best address the meaning of vocational education based on our discussion of an educated person, education, vocation(al), and vocational development. What we are proposing is that the content of vocational education be drawn from the personal and practical problems faced by people in striving for a more desirable social state of affairs in the workplace and family, and the cognitive processes needed to resolve these problems.

Framework for Vocational Responsibilities

The problems of work and family responsibility can be formulated in a variety of ways depending on the conceptual framework used to analyze the responsibilities in question. Care must be taken to ensure that one's framework is consistent with one's aims for vocational education and approaches to curriculum. This point is well illustrated by Strom (1980) for the area of family responsibilities. Among the frameworks she presents for analysis are as follows:

1. Jobs performed by homemakers—the problems of homemaking are viewed from an economic perspective as a series of tasks involving food, clothing, shelter, and care of family members.

2. Functions of the family—emphasis is on the family as a social institution with the problems defined as specific activities to be performed such as socialization, procreation, protection, and affection.

3. Developmental tasks related to family life cycle and individual life-span—family life is described as a series of developmental stages (i.e., establishment, expectant, child bearing, preschool, school age, teen-age, launching, and so on) with more complex problems to be addressed at each stage.

4. Basic (universal) human needs and wants—focus is on the social and psychological problems of family members to bring about satisfaction for self and satisfactoriness by others in the family (i.e., safety, sustenance, companionship, intimacy).

5. Discrepancy between basic human goals and existing human conditions—problems are defined as a discrepancy caused by not reaching or accomplishing basic human goals. Attention is on both a clear statement of affairs contributing to the well-being of families and a critical analysis of present conditions.

A similar set of parallel frameworks could be developed for viewing problems in the workplace.

Strom (1980) goes on to critique these alternative problem-posing frameworks for thinking about the subject matter of education relating to family responsibilities. To summarize her analysis, she concludes that the framework of "Jobs of the Homemaker" tends to limit problems to those that are technical or procedural, immediate, and concrete. Ends are unreflectively assumed (value questions are ignored), the impact of learning on the individual, family, and society is constrained (by focusing on decisions of lesser importance), and learning is fragmented and simplified (separate, discrete tasks of an occupation are emphasized).

The "Functions of the Family" framework ignores the intentions of individual family members and families as a whole in favor of accepted social values. The "Developmental Task" framework suffers from the shortcomings of developmental theory—the stages are not real entities, they don't fit all families, the stages are not well worked out for adulthood, and the same events have different meanings from one generation to the next. However, even with these shortcomings, Strom notes that the developmental framework may be helpful in focusing and ensuring the relevance of problem formulation as well as developing subproblems within larger problem areas.

Using the "Basic Human Needs/Wants" framework for problem posing ignores the variation in meanings attached to satisfaction of particular needs/wants from one person to the next and communication and emancipatory interests of families. Strom concludes that the "Discrepancy" framework, focusing on both basic human needs and existing human conditions, is the most powerful framework for generating problems to guide the content selection for educational programs focused on family life responsibilities. The problems identified are more likely to be significant as a result of attending to both ends and means, to be practical in relation to meaning for everyday actions, to be enduring, continuing, or perennial in their importance, and to give balanced attention to social, family, and individual interests.

The features of the "Basic Human Needs/Wants" framework resonate with and give fidelity to the expectations for an educated person, vocation(al), and education presented earlier in this report. For these reasons the discrepancy between the desired state of affairs and present human conditions was selected as a framework to guide the formulation of problems to be addressed by vocational education. The developmental framework is also kept in mind in thinking about the need for attention to continuity and growth in human experience and learning. The selection of these frameworks to pose problems for vocational education will have a significant effect on the proposed scope and organization of vocational education's subject matter.

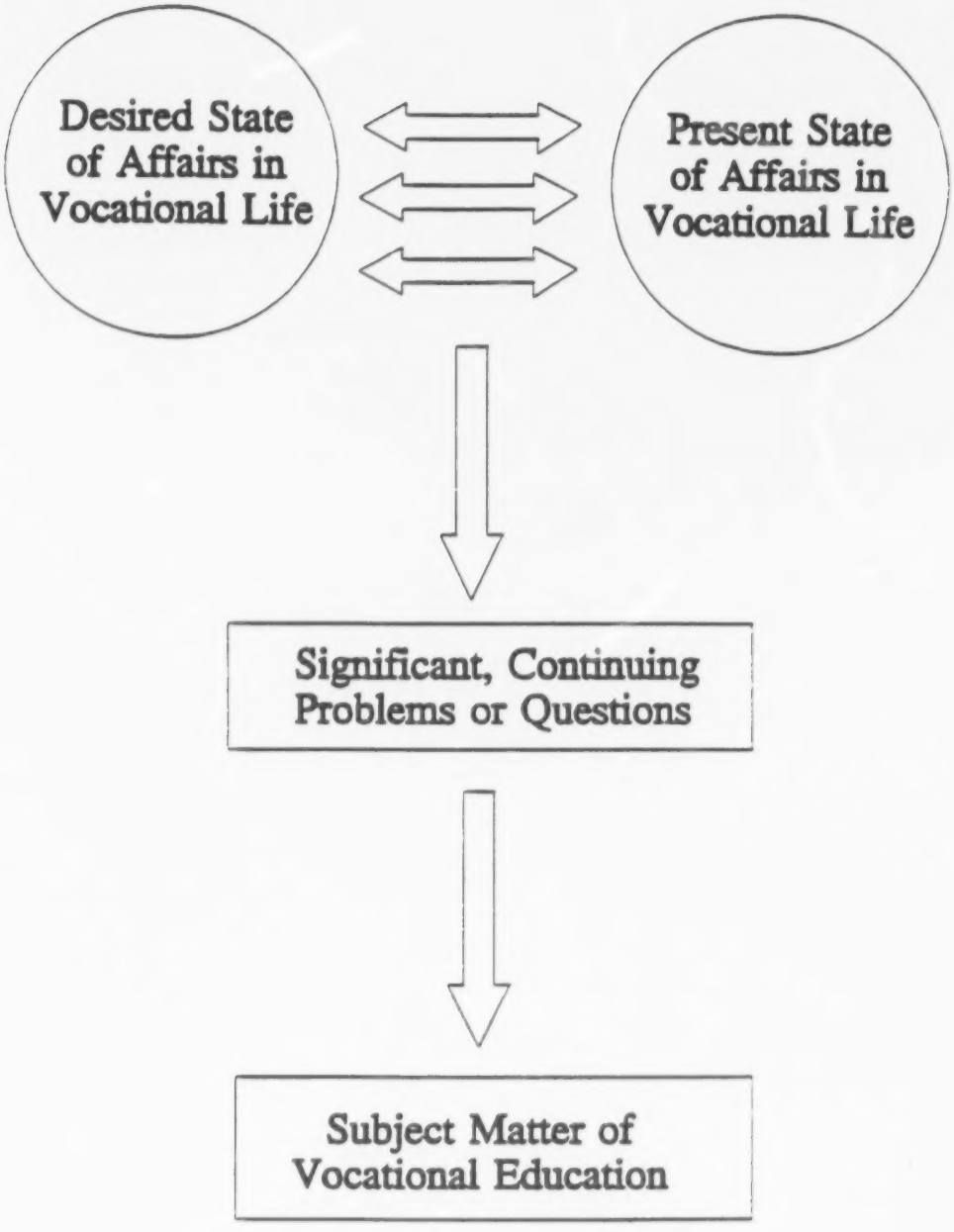
Content of Vocational Education

The curricular content or subject matter of vocational education is learning that enhances success in vocational responsibilities. The content of vocational education is, therefore, made up of the learning that makes for success in resolving problems or concerns encountered in taking vocational responsibilities. Since vocational responsibilities are made up largely of work and family responsibilities, the problems or concerns of most interest are those that are consistently encountered in work and family life. These problems or concerns arise because of the discrepancy between the desired state of affairs in vocational life wherever it is played out (i.e., home, workplace, community) and the present state of affairs (see Figure 3).

The desired state of affairs in work and family life roles and responsibilities needs to be continuously under consideration. However, it is possible to provide an initial framework for thinking about the characteristics or dimensions of a desired state of affairs in the two social units of family and workplace.

Figure 3

Deriving the Problem or Concerns Serving as a Basis for the Subject Matter of Vocational Education


Desired State of Affairs in Vocational Life
Present State of Affairs in Vocational Life
Significant, Continuing Problems or Questions
Subject Matter of Vocational Education

As for the family, Brown (1980) has postulated the dimensions of a desired state in her monograph *What Is Home Economics Education?* (see Table 4). The aim is to develop a mature ego identity in family members and to form a free society. As shown, the desired state of affairs is developed from the perspective of subgroups of family members (i.e., adult man and woman, children, other members of family), all members of the family, and the family as a whole. The section relating to all members of the family differs from other sections in that it suggests the process by which other conditions are to be developed.

If a similar format is applied to the workplace, the desired state of affairs could be formulated as in Table 5, which Nuri Hassumani assisted in developing. The general format and content were inspired by Brown's work relating to the family as shown in Table 4. Although members of the workplace could be subdivided into supervisors and subordinates, blue-collar and white-collar workers, temporary and permanent workers, and new and experienced workers, the categories selected were workers and customers or clients. The categories of workers and customers seemed to provide the broadest perspective, including both those who provide and those who receive goods or services in the workplace.

The framework for describing the desired state of affairs in the family and workplace as presented here is not intended to be the final word. Rather, we hope it will stimulate further discussion, reflection, and study. What is most important is that attention be given to postulating a morally and intellectually sound desired state of affairs as an important component and basis for describing the subject matter of vocational education. Next, or better at the same time, attention needs to focus on the present state of affairs in vocational life as shown in Figure 3. The important and continuing discrepancies between the desired state of affairs and the present state of affairs give rise to the perennial problem areas or challenges of vocational life. They, in turn, are made up of more specific perennial or continuing problems that need to be resolved if one is to be successful in vocational responsibilities. These problems, then, suggest the appropriate content or subject matter for vocational education. Figure 4, adapted from Brown (1977), presents a general organization of the content or subject matter of vocational education from this viewpoint.

Table 4

Desired State of Affairs in Family

1. For the family as a whole, there should be
   - a sense of self-control and self-direction as a family.
   - a sense of intimacy.
   - a sense of privacy or sanctuary.
   - a sense of permanence in human relations.

2. For the adult man and woman, there should be a reciprocal, genuine, loving relationship in which romance (as chivalry and adventure) is active and expectations are realistic; and in which there is a sense of understanding and binding commitment.

3. For children, there should be a stable environment provided by adults in which genuine nurturant qualities are experienced in conjunction with educative authority (in which needs as defined by children themselves do not determine all that their education is to be).

4. For any other member of the family, should there be any, there should be a sense of belonging (of one another and of cultural meanings and norms) and the development of consensus about norms of conduct.

5. For all members of the family, there should be
   - a system of communicative action within the family which enables both understanding (of one another and of cultural meanings and norms) and the development of consensus about norms of conduct.
   - a system of work or purposive-rational action which manages resources of the family and provides the physical requirements of the family to meet goals and standards established through communicative action.
   - a system of emancipative action which enables the family and its individual members to use reason
     - in enlightening themselves about existing dogmatic beliefs, false views, and exploitation which cause human suffering.
     - in developing consciousness of the common interest of those involved.
     - in determining the circumstances surrounding the concrete case of imposed suffering.
     - in developing strategies most likely to produce consequences consistent with common interests (given the existing circumstances) and according to the risks those involved are willing to take.
     - in engaging in the political struggle to change the dogmatic belief, the false view, or the exploitation.

Note: From Brown (1980).

Table 5

Desired State of Affairs in Workplace

1. For the workplace as a whole, there should be
   - a sense of self-control and self-direction as a workplace.
   - a sense of permanence in human relations.
   - a sense of positive self-contribution to a better society.

2. For the workers, there should be a reciprocal, genuine, colleagial relationship in which each person is valued as a person and for her or his contribution; is treated fairly in intrinsic and extrinsic rewards; is expected to accomplish her or his work effectively; and is able to grow and develop.

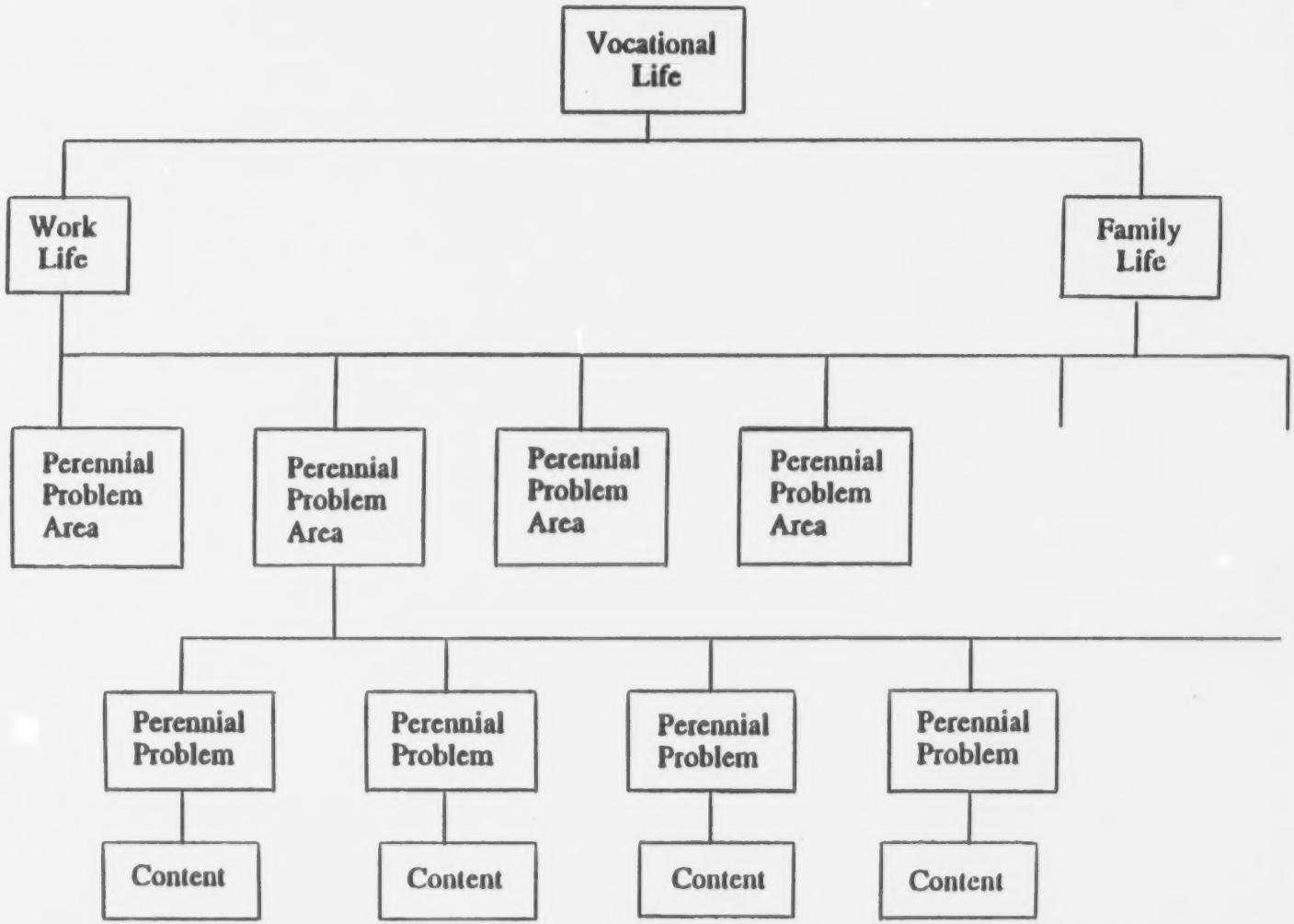
3. For the customers or clients, there should be a sense of having personal significance; and of having assistance in determining and, if appropriate, resolving needs effectively.

4. For all members of the workplace, there should be
   - a system of communication that enables both understanding (of one another and of cultural meanings and norms) and the development of consensus about norms of conduct.
   - a system of work which manages resources of the workplace and provides the physical requirements for the workplace to meet goals and standards established through communication.
   - a system of action that enables members of the workplace to use reason
     - in enlightening themselves about existing dogmatic beliefs, false views, and exploitation which cause human suffering.
     - in developing consciousness of the common interest of those involved.
     - in determining the circumstances surrounding the concrete case of imposed suffering.
     - in developing strategies most likely to produce consequences consistent with common interests (given the existing circumstances) and according to the risks those involved are willing to take.
     - in engaging in the political struggle to change the dogmatic belief, the false view, or the exploitation.

Note: The general format and some of the content is from Brown (1980).

Figure 4

Organization Scheme for the Subject Matter of Vocational Education



Note. Adapted from Brown, M. M. (1977). A conceptual scheme and decision-rules for the selection and organization of home economics curriculum content. Madison, WI: Wisconsin Department of Public Instruction.

Issues in Describing the Problem of Vocational Life

Several issues come to mind when thinking about the problems and problem areas (clusters of related problems) that make up work and family life responsibilities. For example, how are these problems and problem areas best portrayed to give a sense of their interrelationships—as an array, matrix, network, constellation, hierarchical chart? The approach we have taken here is simpler, to cast the problem areas as an array of areas seemingly of equal importance in contributing to vocational competence.

Second, what is the most appropriate way to think about the relationship of work and family responsibilities—as two separate areas of responsibility with little interrelationship, as one transformed concept of work that is sufficiently broad to include both work and family responsibilities, as two separate but overlapping areas of responsibility with the overlap labeled as balancing work and family, or as two separate, nonoverlapping but interacting areas of responsibility? The initial position taken in this proposal is that these are two separate areas of responsibility with similar problem areas and one shared problem area (i.e., balancing work and family responsibilities).

Third, in seeking to describe an appropriate array of problem areas within the overall framework of contrasting a desired state of affairs with the present state of affairs, problems are viewed as involving an interaction between self and other people and/or the environment. The other people and/or environment in question are those of the workplace and home. In seeking to formulate salient problems, it is interesting to consider if they should be stated from the perspective of superior or subordinate (i.e., supervisor versus employee, parent versus child), peers (i.e., worker versus workers, husband versus wife), internal versus external (i.e., worker versus customer, host versus guest). What difference would any of these perspectives make in thinking about the subject matter of vocational education?

Fourth, there is the issue of the near and far time horizon and environment. Should problems focus on the long term or short term? Should they focus on near environment (i.e., the individual's workplace and home) or far environment (i.e., the nation, the world). Should these problems be thought about from an active versus a passive perspective? Do problems happen to people or are they chosen? Perhaps both kinds exist.

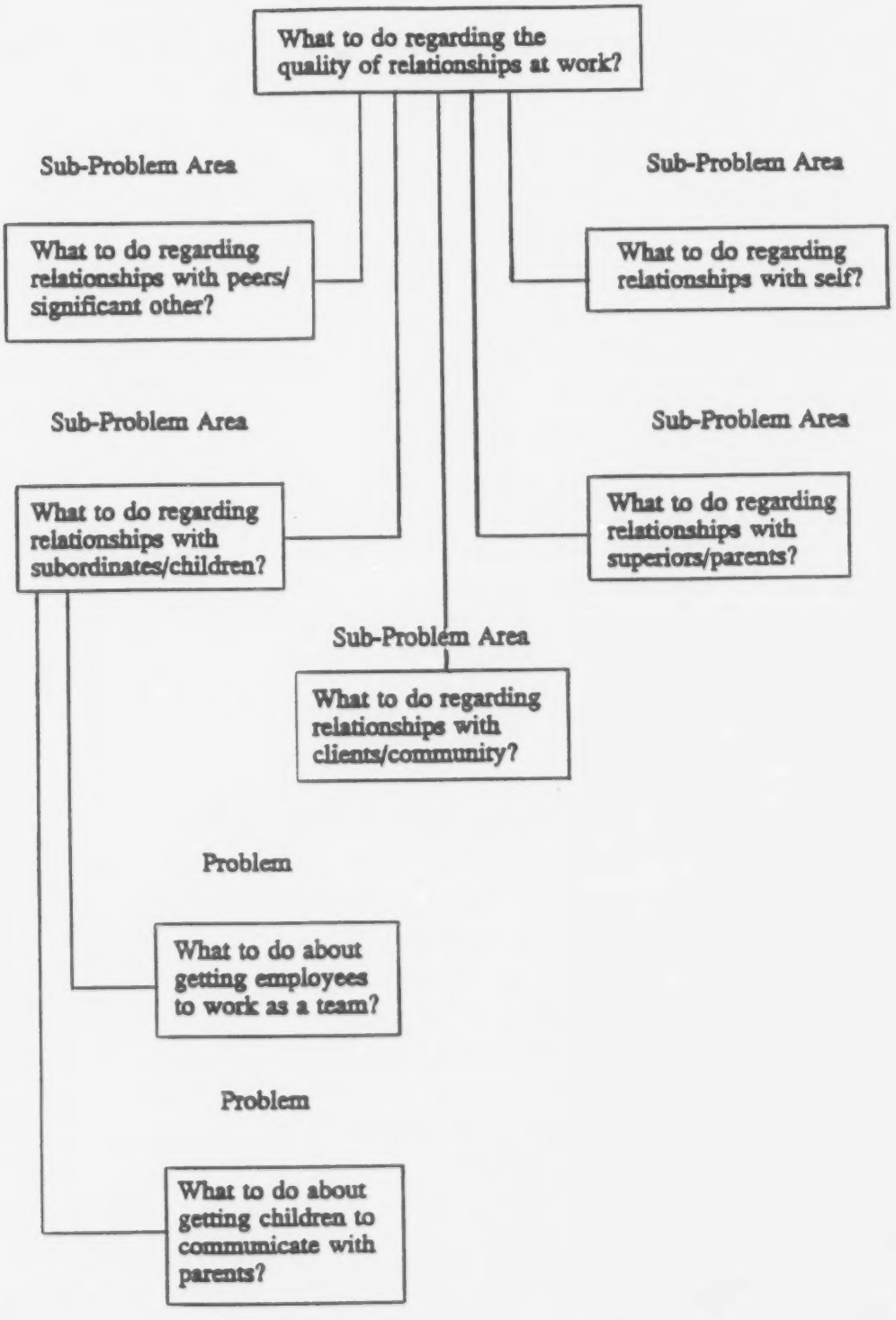
Fifth, within broad problem areas such as relationships, what is the best second level of classification? The breakdown of a problem area might take the form shown in Figure 5. Should it be by who is having the problem (i.e., subordinates, supervisors), the stage of the relationship (i.e., initiating, maintaining, severing), or by type of problem (i.e., conflict, support)? The breakdown of work and family responsibilities using a variety of criteria is shown in Table 6. The implications of these different approaches for thinking about the problem of vocational life could be significant for describing the subject matter of vocational education.

Sixth, problems can be viewed to be of basically different kinds. A classification of problems adapted from Reid (1979), Hultgren and Shear (1983), and Hultgren and Wilkosz (1986) is shown in Figure 6 with illustrations taken from the problem area of relationships, in this case with subordinates in work life and children in family life. The first differentiation is between practical and theoretical problems, with practical problems being questions of what to do and theoretical questions focusing on explanation or understanding and not requiring action. Practical questions that form the basis of everyday work and family responsibilities are subdivided into procedural (or technical) questions of how to do something with the ends prescribed and questions where both ends and means are uncertain. Problems of the uncertain kind are, in turn, differentiated into the prudential (involving only concerns about self) and the moral (involving consequences for both self and others). A major premise in this proposal for the subject matter of vocational education is that it addresses the practical problems of vocational life.

Brown (1977) defines practical problems as those needing to be worked out. A cookbook solution does not apply because a specific situation and its characteristics need to be addressed. The problem is created by a discrepancy between a desired state of affairs in places such as work or family life and society in general. Resolution requires a conceptual understanding of the desired state of affairs and well-being as a prerequisite to stating the problem. Phrased as "What should I (we) do about. . . ?", practical problems require action for resolution—they cannot merely be studied. Since they have consequences for self and others, they have moral and aesthetic dimensions.

Figure 5

Breakdown of a Problem Area


What to do regarding the quality of relationships at work?
Sub-Problem Area
What to do regarding relationships with peers/ significant other?
Sub-Problem Area
What to do regarding relationships with self?
Sub-Problem Area
What to do regarding relationships with subordinates/children?
Sub-Problem Area
What to do regarding relationships with superiors/parents?
Sub-Problem Area
What to do regarding relationships with clients/community?
Problem
What to do about getting employees to work as a team?
Problem
What to do about getting children to communicate with parents?

55

Table 6

Use of Multiple Criteria to Break Down the Problem Areas and Problems of Work and Family Responsibilities

1. Relationships
   - 1.1 Relationship with Self
     - 1.1.1 My inconsistent work history
     - 1.1.2 Deciding if the living situation for my 11-year old is satisfactory
   - 1.2 Relationship with Others
     - 1.2.1 Horizontal (Peers, Significant Others)
       - 1.2.1.1 Meeting spouse's expectations
       - 1.2.1.2 Friction between myself and coworker
     - 1.2.2 Vertical-Up (Boss, Parents)
       - 1.2.2.1 Sexual harassment from administrator
       - 1.2.2.2 Death of father-in-law
     - 1.2.3 Vertical-Down (Employees, Children)
       - 1.2.3.1 Argumentative public with which I deal
       - 1.2.3.2 Youngest child leaving home
     - 1.2.4 Pets
       - 1.2.4.1 Demanding pets
       - 1.2.4.2
     - 1.2.5 Higher Being
       - 1.2.5.1 Inadequate attention to spiritual life
       - 1.2.5.2

2. Resources
   - 2.1 Time
     - 2.1.1 Lack of time to spend with family because of work schedule
     - 2.1.2 Too many household chores
     - 2.1.3 Too much work with too little time
   - 2.2 Money
     - 2.2.1 Delay in sale of out-of-state house
     - 2.2.2 Fear of place of employment not being funded
     - 2.2.3 Having to purchase a new car when financially not prepared
   - 2.3 Health
     - 2.3.1 Bad environment which is very stressful
     - 2.3.2 Lack of enthusiasm and energy

Table 6 (cont.)

3. Technical Competence
   - 3.1 General Skills
     - 3.1.1 Not having mathematics skills necessary for my job
     - 3.1.2
   - 3.2 Specific Skills
     - 3.2.1 Approaching new potential customers for business
     - 3.2.2 Car would not start and had to take bus

4. Environment
   - 4.1 Physical
     - 4.1.1 Living in out-state Minnesota
     - 4.1.2 Relocation of work facilities
   - 4.2 Social-Economic (Community)
     - 4.2.1 Losing job unexpectedly
     - 4.2.2 Weather

Reid (1979) draws on the writing of Gauthier (1963) in proposing a set of characteristics for practical problems, particularly the type classified as uncertain, moral problems in Figure 6. The characteristics presented by Reid (1979, pp. 188-189) as adapted from Reid by Copa and Copa (1990) are as follows:

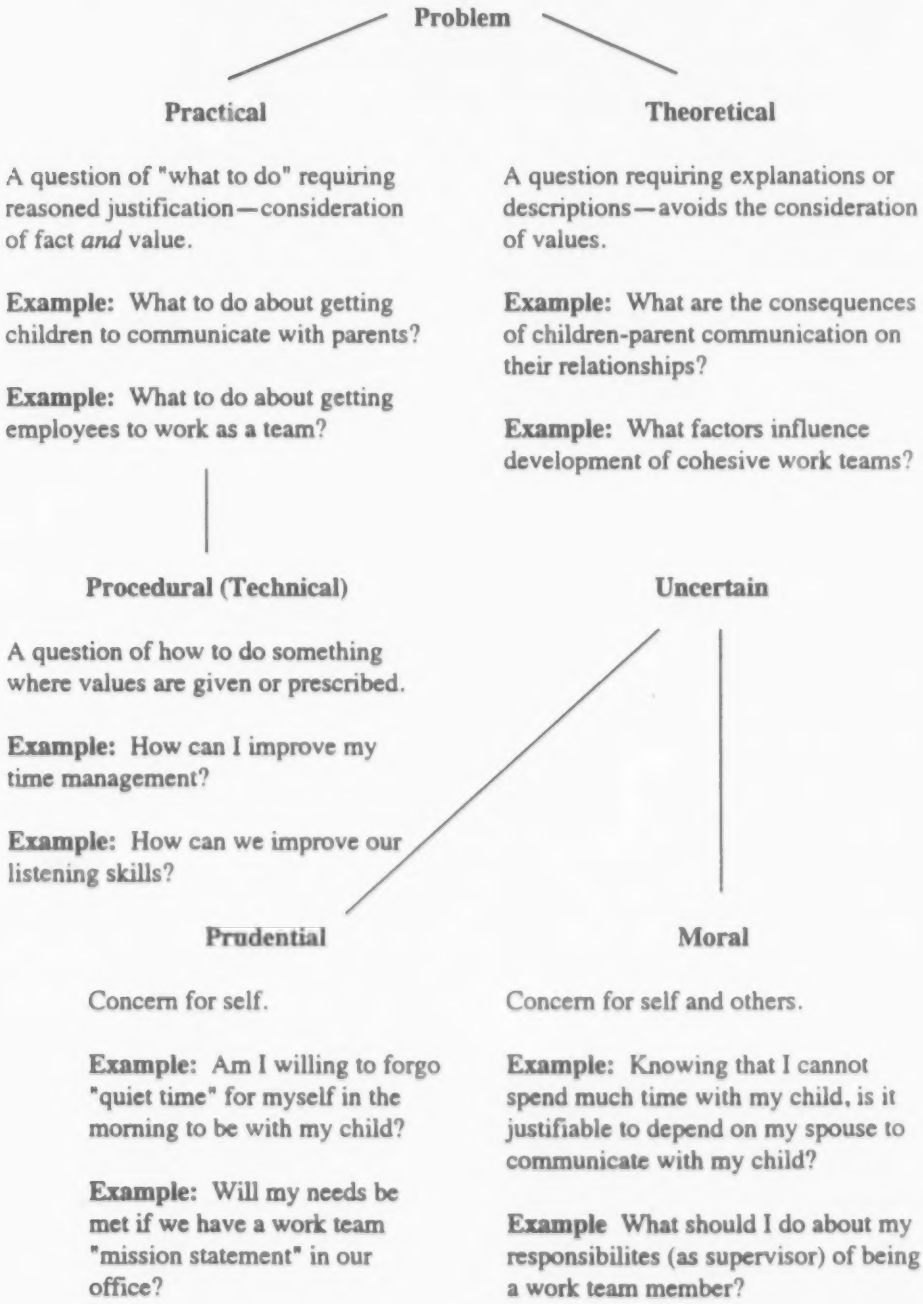
1. They are questions that have to be answered. Even no answer is an answer. In this respect, they may be contrasted to academic questions which do not require that answers be specified or actions taken.

2. The grounds on which decisions should be made are uncertain. No one can tell with certainty whose interests and what evidence must be taken into account. There be assigned to various criteria is not clear. Finally, the boundaries for who needs to be consulted in making the decision are arbitrary and problematic.

3. In resolving practical problems, some existing state of affairs must be taken into account. There is never the opportunity for an entirely fresh start. Rather, each problem must be understood in the context of its unique history and the present conditions that have evolved from it.

Figure 6

Types of Problems Encountered in Work and Family Responsibilities


Problem
Practical
Theoretical
A question of "what to do" requiring reasoned justification—consideration of fact *and* value.
Example: What to do about getting children to communicate with parents?
Example: What to do about getting employees to work as a team?
A question requiring explanations or descriptions—avoids the consideration of values.
Example: What are the consequences of children-parent communication on their relationships?
Example: What factors influence development of cohesive work teams?
Procedural (Technical)
Uncertain
A question of how to do something where values are given or prescribed.
Example: How can I improve my time management?
Example: How can we improve our listening skills?
Prudential
Moral
Concern for self.
Example: Am I willing to forgo "quiet time" for myself in the morning to be with my child?
Example: Will my needs be met if we have a work team "mission statement" in our office?
Concern for self and others.
Example: Knowing that I cannot spend much time with my child, is it justifiable to depend on my spouse to communicate with my child?
Example What should I do about my responsibilites (as supervisor) of being a work team member?

Note: Adapted from Reid (1979); Hultgren and Shear (1983); and Hultgren and Wilkosz (1986).

4. Each problem is in some way unique. The problem belongs to a particular setting, time, and participants. The particulars of the setting and their relationships can never be known completely, and, furthermore, they are continually evolving.

5. Practical problems compel adjudication between competing goals and values. Some goals will be compromised as others take precedence. A resolution is sought that is most satisfactory for the greatest number of people.

6. The outcome of the chosen approach to action can never be fully predicted. Also, the outcome of approaches not selected cannot be known.

7. The grounds used for judgment about a practical problem are not for the judgment per se but for some resulting desirable state of affairs.

Seventh, practical problems are perennial or continuing concerns that are not solved but only resolved for a time period or set of circumstances. They are enduring, often faced several times in a lifetime, repeatedly considered by each generation. This point is more easily understood when the problems are formulated in human terms, the aim being to achieve ends such as human dignity, freedom, and self-awareness. These characteristics of practical problems make them very important, particularly from an educational perspective.

Eight, practical problems can and need to be grouped into problem areas for pedagogical purposes. As Brown (1977) discusses, what we should seek are middle level problems. If the problems are too specific, value questions are too often evaded (since much is already given), there is a tendency to focus on menial tasks (only unimportant procedural problems), and the knowledge base resulting is fragmented and simplistic. On the other hand, if the problem is overarching, the relationship to individuals and situations is too abstract, thereby lacking in insights and meaning for what should be done. Brown advises that problem areas be selected that are significant, perennial, and social. By social is meant that they have human consequences, are shared (by members of society), and are problems of a social unit (i.e., family, workplace).

Problem Areas of Vocational Life

The problem areas described below result from the researcher's involvement in a wide variety of activities and experiences which include the following:

1. Extensive examination of library materials relating to work and family responsibilities. Unfortunately and strangely, no comprehensive framework of problem areas for everyday work and family life was found.

2. Interviews with professors/scholars teaching and doing research relating to work and family from several disciplinary areas (i.e., sociology, psychology, economics, industrial relations).

3. Teaching a graduate class on education for work and family responsibilities in which students were involved in analyzing stories of work and family life, newspapers, self-analysis, and interviews of others concerning the problems encountered in everyday life.

4. Participating and coordinating workshops to identify the desires and needs of young people as they relate to schooling in the context of vocational education; workshop participants included young people and professionals who work with young people both in and outside school.

5. Directing a study team with the aim of describing the purposes of vocational education in secondary schools through extensive observation in classes and interviews of students and teachers, counselors, and administrators.

6. Directing a reading group examining the history and development of vocational education in the larger context of education and considering its major purposes for the past, present, and likely future.

7. Directing a conference designed to re-vision vocational education in secondary schools using the perspectives of experts from outside the field of vocational education in conversation with practicing vocational educators.

8. Directing a study of the relationship between vocational education and graduation requirements involving the policies and practices in four states where vocational education courses provide credit toward graduation requirements.

9. Serving on a state task force to examine and make recommendations concerning the relationship of school and preparation for work and family responsibilities.

10. Serving on a state strategy design group to restructure secondary vocational education programs with particular attention to the issues of integration among curricular areas, articulation among school levels, modernization of program, and equity in program access and treatment.

Each of these experiences helped to shape the resulting problem areas serving as an initiating point for describing and organizing the content of vocational education, making it difficult to attribute the proposed and still tentative listing to any one experience.

Edward Tebbenhoff assisted in developing background materials and discussions leading to this tentative listing of problem areas for vocational life. The tentative categorization of the problems or concerns encountered in taking vocational responsibilities is as follows:

1. *Understanding vocational life*—the problems or concerns in anticipating and making sense out of the problems or concerns encountered in vocational life (i.e., How does work/family fit into our culture? Why does this problem have to be dealt with now?).

2. *Rights and responsibilities in vocational life*—the problems or concerns about distribution of power and authority encountered in work/family life (i.e., What are my responsibilities in this work/family? What rights should I have in this work/family?).

3. *Relationships in vocational life*—the problems or concerns about interrelationships among individuals in work and family life (i.e., How should I relate to peers? How should I relate to subordinates?).

4. *Technology and vocational life*—the problems or concerns about dealing with technology and technological change in work and family life (i.e., How should I cope with this technological change in my work/family life? Is this technology helpful?).

5. *General vocational life competence*—problems or concerns that are technical in nature but general across various vocational responsibilities (i.e., problem solving, communications, learning to learn, computation, creative thinking, leadership).

6. *Specific vocational life competence*—problems or concerns that are technical in nature but specific to selected vocational responsibilities (i.e., adjusting a carburetor to an automobile mechanic, balancing a budget statement to an accountant, disciplining a child to a parent).

7. *Managing vocational life*—problems or concerns in managing one's own work/family life (i.e., selecting preferred type of work/family life, using resources appropriately in work/family life, considering needed changes in work/family life, balancing work and family responsibilities).

These categories of problems or concerns appear over and over again in vocational life. Specific problems or concerns are resolved, only to appear again as individual interests and needs, and context change. It is hoped that as learning and life progress, individuals undergo vocational development and become more competent with respect to resolving problems or concerns in each category over time and stage of development as more educated persons.

Much work needs to be done in identifying, describing, and organizing the specific problems that make up vocational life, particularly as it relates to work and family life. A brief attempt at developing a more specific listing of exemplary problems under each of the above problem area categories is shown in Table 7, which Ginny Pease assisted in developing. For a perspective on moving from problem areas and problems to the content of vocational education, see the work of Thomas, Johnson, and Cooke (1989).

Table 7

Illustrative Problems of Vocational Life

Table 7

Illustrative Problems of Vocational Life

Problem Area	Description	Illustration
1. Understanding work and family (vocational) life.	Anticipating and making sense out of the problems encountered at work and at home.	What should I do about finding my place in organizations which will allow me enough economic security that I can have choices about my work and family life? • How can I come to know my interests, talents, and goals? • What will I have to deny myself in order to earn a living wage; establish my own family? What is my role in work and family organizations? • What is it like at the top? In the middle? At the bottom? • What is it like in new organizations (i.e., birth and growth of opportunities/ babies)? • What is it like in organizations at times of crisis? • What is it like in organizations at times of decline? What is possible for me in my current position? For the future? Whose motives direct my actions and decisions at the workplace and in the home (i.e., mine, others, government, society, children, religion)? How can work help me to shape and know who I am? How is my self-identity expressed or denied at my work and in my family? What is fair compensation for my efforts (i.e., money, self-esteem, pride, feeling successful, status)? What is the connection between a "good" education and "good" work? Will I get a good job? Will my children turn out well? Will my community be a better place in which to live?

Problem Area	Description	Illustration
		How can I employ my abilities and skills in making and doing? How do I make good decisions about my employment and my family (i.e., knowing myself, knowing the nature of work, knowing the nature of family)? What is the meaning of work mobility? How does this affect me and influence my family life (i.e., commuting, transfers, telecommuting, plant closings, globalization, foreign parts)? What is the history of jobs in the workplace and in families that affect me today? What impact does work done and families now have on the future of the world? As an individual can I shape the future or am I helpless?
2. Rights and responsibilities in work and family life.	Distribution of power and authority encountered in work and in family life. Characteristics of responsible workers and family members.	What are the sources of real power to get things done? What should I do about feeling powerless? What are my responsibilities at work and at home? Where are the sources of information on rights and responsibilities, and how do I use them (i.e., duties, OSHA, unions, ad hoc groups, human resources departments)? How does work meet my needs for protection for me, for my family, and for my community (i.e., medical, legal, retirement, out placement, environmental)? Who owns my good ideas, inventions, and new insights about work and family? Can I prevent a former employee/employer/spouse from competing? How do I recognize imbalances in employee/employer rights and responsibilities (i.e., strikes, law suits, layoffs, concessions, family violence, teenage antagonism toward parents, workaholics, pollution, paternalism, work antagonism toward management)?

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Problem Area	Description	Illustration
		What can I expect regarding fairness in my places of work and in the family (i.e., compensation, equal opportunity, affirmative action, discrimination, trust)?
		What can I expect regarding safety in my places of work and in the home (i.e., physical, environmental, personal, emotional)?
		In my situation, what are the issues (rights) that are worth fighting for by organized labor, ad hoc groups, government, neighbors, family (i.e., job security, right to strike, divorce, counseling, decent compensation, right to work, health and safety, equity, participatory management/marriage)?
		What responsibilities are expected of me that should be stated explicitly (i.e., duties, learning on the job, work ethics, adding value)?
		What responsibilities are expected of me that are usually implicit (i.e., honesty, loyalty, commitment, health, flexibility)?
		What techniques can I learn that will help me strike a balance between my rights and responsibilities and others (i.e., strikes, grievances, slow downs, conflict management, counseling, support groups, time management)?
3. Relationships in work and family life.	Interrelationships between individuals in work and in family life.	How should I relate to peers; spouse?
		How should I relate to subordinates; children?
		How should I relate to supervisor; parents?
		How can I relate to work groups at the workplace and in families (improved group dynamics)?

Problem Area	Description	Illustration
		What acts and attitudes make work relations harmonious in workplaces and in the home? What is troublesome? What is my role when relations are harmonious? Troublesome? When should I fight? When should I take flight? What problems do people encounter when they enter roles for the first time?
4. Technology in work and family life.	Dealing with technology and technological change in work and family life.	How should I deal with technological change at work and at home? • How should I deal with technological changes that are desired? Undesired? Expected? Unexpected? • How has our environment been changed by new technology? • How am I affected by technology transfer (i.e., nationally, internationally)? How should I evaluate the effects of technological change? • Is new technology having good or bad effects on the stability of my work and family institutions (i.e., home, school, recreation)? How does technology help me do my work (i.e., in the past, now, in the future)? What is the influence of tools and technology on work and family values? What should I do about ethical questions arising out of technology? Who should answer these questions? • How best can technology be fitted to human needs? To environmental needs? • How can I select and use resources for technology? Who owns resources? • If I accept technological change, must I accept responsibility for its by-products?

Problem Area	Description	Illustration
5. General work and family life competence.	Concerns that are procedural in nature, but **general** across various work and family responsibilities.	What problems are mine to solve? How creative should I be? How will the ability to "read people" help me use my reading, written, oral, and listening skills? How can I adapt to the work that is expected of me at home and in the workplace (i.e., learning, adjusting)? How accurate do I have to be to avoid extra expenses? How can I develop my leadership potential? How do I handle leadership succession at the top? How can I produce more value than my predecessor? • How can I work smarter not harder? • How can I have more time with my family and co-workers for fun things? How can I do it right the first time? How can I know that what I've done is what was desired? What is quality? Do I know how I fit into this workplace or family? When is it my time to nurture others? To be nurtured?
6. Specific work and family life competence.	Concerns that are procedural in nature, but **specific** to selected work and family responsibilities.	How should I adjust a carburetor (for an automobile mechanic)? How should I balance a budget statement (for an accountant)? How should I discipline a child without destroying self-esteem (for a parent)? How should I produce a newsletter (for an office worker or a volunteer)?

Problem Area	Description	Illustration
		How should I give a bed bath (for a health care worker)? How should I plan and prepare a nutritious meal (for a parent or food worker)? How should I share an idea (for a spouse)?
7. Managing work and family life.	Managing one's own work and family life.	What life-style should I select? • How can I establish and maintain a strong family without economic stability and security? • What are realistic expectations of the use of my resources in the workplace and in my family? How should I use my resources appropriately? • How does work affect my personal and family life (i.e., time, energy, psychological interference)? • How does this work get divided up in my life (i.e., day care, house management, food preparation, transportation, elderly parents)? • How do I best manage (optimize) the time and resources I have? • What should be my backup plans (risk-management plans) when things don't go right? What changes should I consider in my work and family life? • How can I cope with stress? • How can I accomplish changes in my work and family life?

Moving from Problem Areas and Problems to Content of Learning

The specific learning content of vocational education is identified by starting with the vocational responsibilities and the problem or concern they entail and backing into the needed knowledge. As such, the content of vocational education backs into the various academic disciplines and professional fields of study. Focusing on the problems of vocational life can make academic study more relevant and motivating for the learner. The academic disciplines provide the foundational content of vocational education, and the professional fields of study provide some of the specialized content of vocational education (see Figures 7 and 8).

The foundational and specialized content is integrated around the various components of problem solving: aims, context, alternatives, consequences, judgment, and action (see Figure 9). Examination of the nature of practical problems and their resolution through practical reasoning provides the basis for thinking in this way about the content of vocational education.

Practical reasoning is a systematic, reflective process requiring deliberation (often with others) and using a variety of kinds of knowledge—facts, interpretations, and values. The process requires consideration of valued ends, context, and options relating to the problem under consideration. The elements of practical reasoning include the following:

1. *Determining aims or desired state of affairs.*
   The kind of life one wants for one's self and others, moral questions of justice and equity, aesthetic questions of appreciation and meaning, short- and long-term ends, whose interests need to be represented and how they are to be weighted, who could be hurt by not being considered, what grounds will be used for deciding what to do, consistency between short- and long-term goals, and the process that will be used to decide are under consideration in this element. The result of this element of practical reasoning is the value standards that will be used to evaluate optional actions to be taken. These standards need to be kept open for scrutiny and testing during other elements of the process.

2. *Studying and interpreting contextual information.*
   Aspects of context include historical, social, political, cultural, and economic information about what the situation is and how it came to be. Some will be observable information, some not. This element primarily provides for multiple perspectives of those experiencing the problem in terms of setting, priorities,

Figure 7

Sources of Foundational Content of Vocational Education

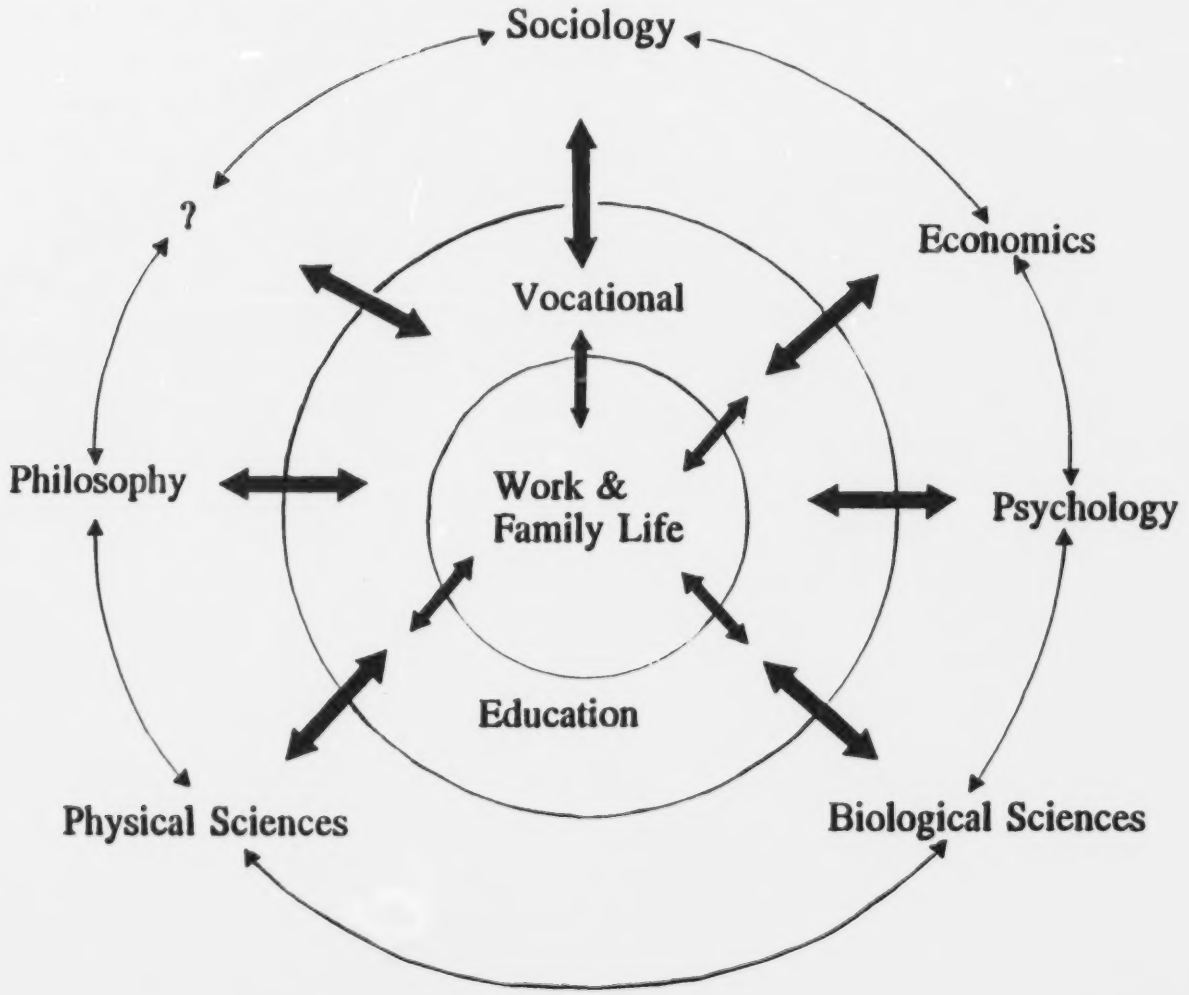


Figure 8

Sources of Specialized Content of Vocational Education

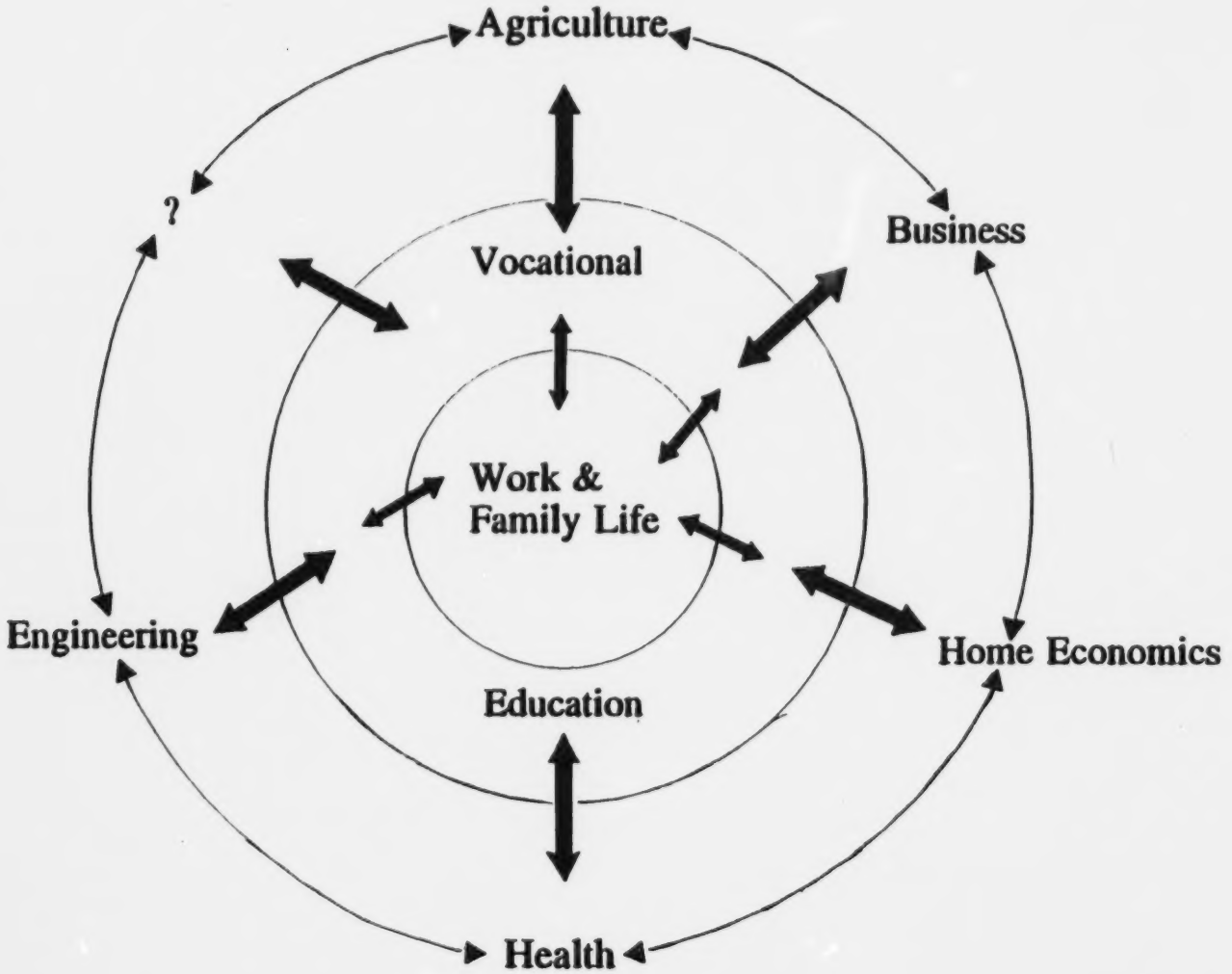
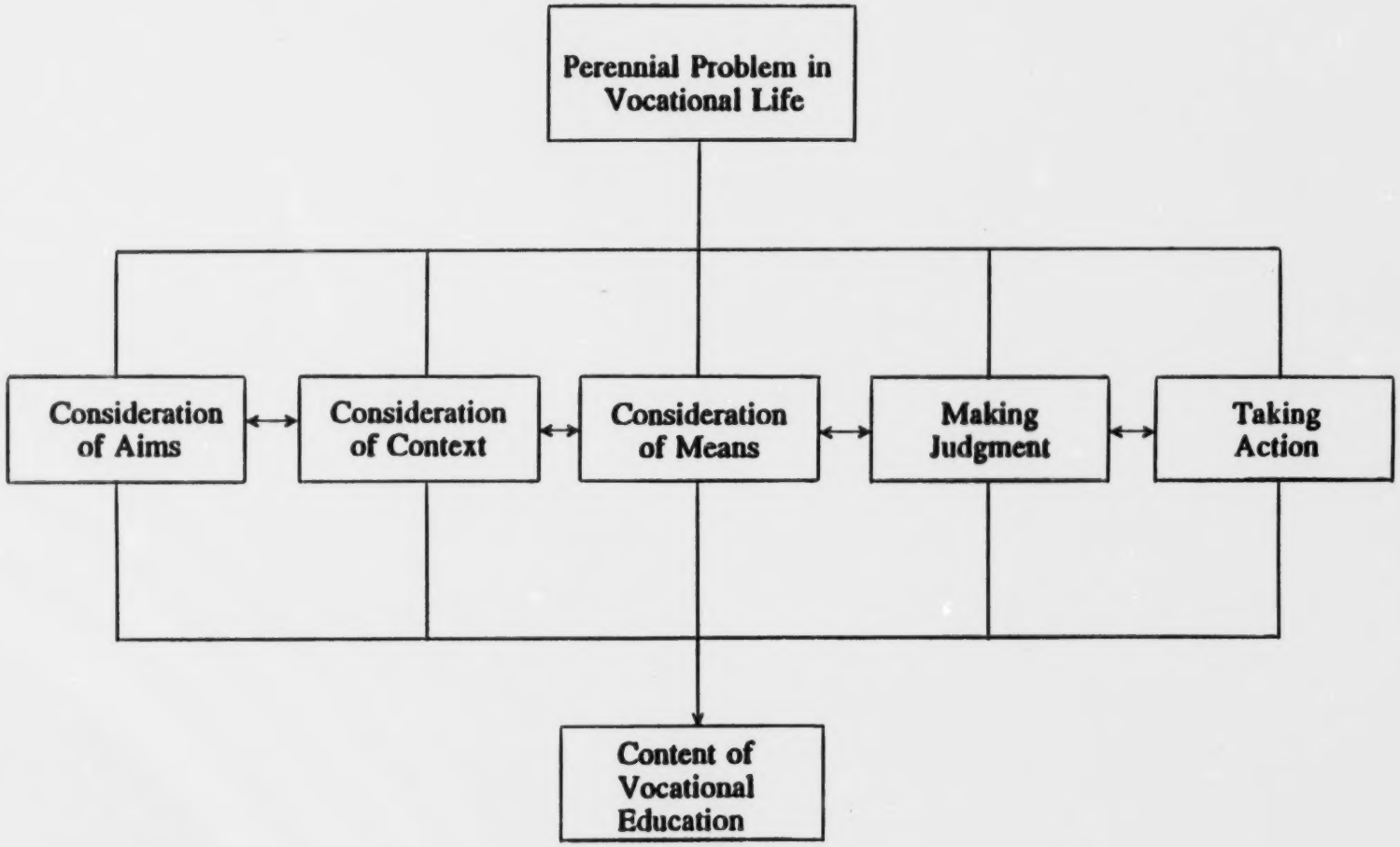


Figure 9

Deriving the Content of Vocational Education



budget, time, external relations, and key actors. Attention is on the feelings and needs of those involved, including their anxieties and the risks they will be taking. Results of this element may serve to limit options and test the aims developed in the previous element.

3. *Developing alternative actions.*
Alternatives may be selected from existing possibilities or may be developed mentally or experimentally through creativity and imagination. Attention is paid to what might work and what others have tried in similar situations.

4. *Evaluating consequences.*
In this element, the likely consequences of alternative actions are assessed in terms of aims and context. Assessment could be mental or experimental. Resulting from this element of practical reasoning is information on the effectiveness, feasibility, and efficiency of alternative actions. Evaluation may serve to make the alternatives more concrete as part of the review process.

5. *Making judgment.*
Although uncertainty will continue regarding consequences, the action that should be taken to resolve the problem is selected in this element. This process often takes courage, commitment, and conviction as goals are prioritized, likely consequences are reviewed, and contingencies are developed. More than likely, judgment is not made by one person at a particular point in time but, rather, is the result of accumulative process involving others.

6. *Taking action.*
Since practical problems are problems of "what should I (we) do," some action is required even if it is arriving at a decision to do nothing.

7. *Evaluating and monitoring action.*
Because practical problems involve continually changing context and uncertainty, modifications in actions are likely to be required. The perennial or continuing nature of practical problems keeps the monitoring element always in play at some level.

Reviewing the process of practical reasoning requires attention to both the process of resolution and its results—both what and how things will be done. The process is dialogical in involving open conversation with others and normative in seeking value

standards resulting in the greatest good. The best action to take is in part a decision and in part a discovery that emerges in the process as the relation of aims to context to action becomes clear (and thereby educative). The process is interactive among elements and can actually proceed in any order and move back and forth between elements. In fact, rigid procedures such as voting and administrative structure may get in the way of success. The process requires enough contact time with the situation and those involved to provide complete and accurate perspectives. To reaffirm, practical problems are addressed and resolved only through practical reasoning since they are continuously changing. However, if practical reasoning is used reflectively and systematically, it provides a framework and process that can successfully deal with the complexity and challenge of practical problems.

When evaluating the results of seeking to enhance practical reasoning, which would be the aim of vocational education, a set of six standards proposed by Coombs (1986) provides useful insights:

1. Beliefs that serve as one's reasons are supported by adequate evidence—requires a critical perspective that takes all reasonable means to investigate the truth of beliefs.

2. Desires underlying one's reasons are genuine/worthwhile values—requires an accurate and vivid image of the desired state of affairs and persistence of the desired state in light of full information.

3. Considers as many plausible alternative actions as is reasonable—requires imagination and creativity in developing plausible alternatives.

4. Takes account of as much relevant information about alternatives as possible—requires reasonable and thorough search of information.

5. Ensures that the chosen alternative does not involve acting immorally—requires imagining one's self in the position of the most adversely affected by the action, if principles underlying action apply to other similar cases, and if everyone would take the same action.

6. Ensures that the chosen alternative realizes the best consequences—requires the ability to order complex reasons for the relative benefits of alternative actions and

the disposition to act in the manner that contributes more to the preferred way of life.

As described, these standards require being able to decide what is good, sufficient reason to compare the relative consequences of alternative actions, and to reason about both ends and means.

Using the elements of practical reasoning and the above standards as a base, the desired features of an educational response would seem to entail the following characteristics:

1. Concerns both content and reasoning—attention would be paid to both the knowledge relevant to the problem and the process of reasoning about the knowledge.

2. Grounded in real, concrete problem of interest—if the important ways of dealing with the practical reasoning elements of aims, context, consequences, and actions are to be learned effectively, the educational activities would need to deal with a real problem of interest to students.

3. Provides for deliberation—the importance of reflective thinking and conversation with others to the process of practical reasoning requires learning opportunities for deliberation.

4. Provides for experiences—experiential learning is needed to see the role of experience in formulating and resolving the problem, particularly if its requirement for action and practice is to be effective.

5. Integrates learning from a variety of subject areas—the educational experience must start with a practical problem and back into relevant subject matter areas and involve synthesis across areas for understanding and insight into appropriate action.

6. Addresses all elements of practical reasoning—it is important to develop skills at each element as well as seeing their interactive and interdependent nature as a whole.

Method of Vocational Education

The methods of vocational education stress sustained thinking about difficult problems that have real consequences in the context of vocational responsibilities. Attention is on the application of basic, general skills (i.e., communications, computation) and higher order, general skills (i.e., decision making, creative thinking) requiring real, experiential activities. Facility at problem solving that involves consideration of aims, context, alternatives, consequences, judgment, and action is a central, valued end to be encouraged by the methods of vocational education. Learning occurs in, about, and through the content of vocational education. In its aims and practice, the content and methods of vocational education are inseparable. As noted earlier, learning occurs in a variety of settings, including home, school, workplace, wider community, and combinations of these settings. The methods of vocational education involve foundational as well as specialized study as shown in the vocational education continuum which represents school-based learning (see Figure 10).

Structure of Vocational Education

The educational process must be structured so that learning that focuses on work and family life does not unnecessarily stratify individuals economically or socially. A powerful means for preventing stratification is to ensure that vocational education is part of the education common to all individuals and to give equal status to all levels of the vocational continuum (see Figure 10). This aim will be particularly difficult since all vocational responsibilities are not given equal dignity in our culture.

Part of vocational education's uniqueness is its attention to specific vocational life skills. To ensure that this uniqueness is not lost, the subject matter of vocational education needs to be organized so that specific skills continue to be viewed as central to vocational education. Figure 11 provides two optional ways of structuring the content of vocational education. The first structure suggests that the problem areas of vocational responsibility are relatively independent in contrast to the second. The second structure maintains a central focus on specific skills. Other structures may need to be investigated.

To prevent the ballooning of the content of vocational education to the point where it does not fit in a given learning environment (i.e., school, workplace), it must be appropriately articulated with learning that has come before and that will come after, and

Figure 10

Vocational Education Continuum for School-based Learning

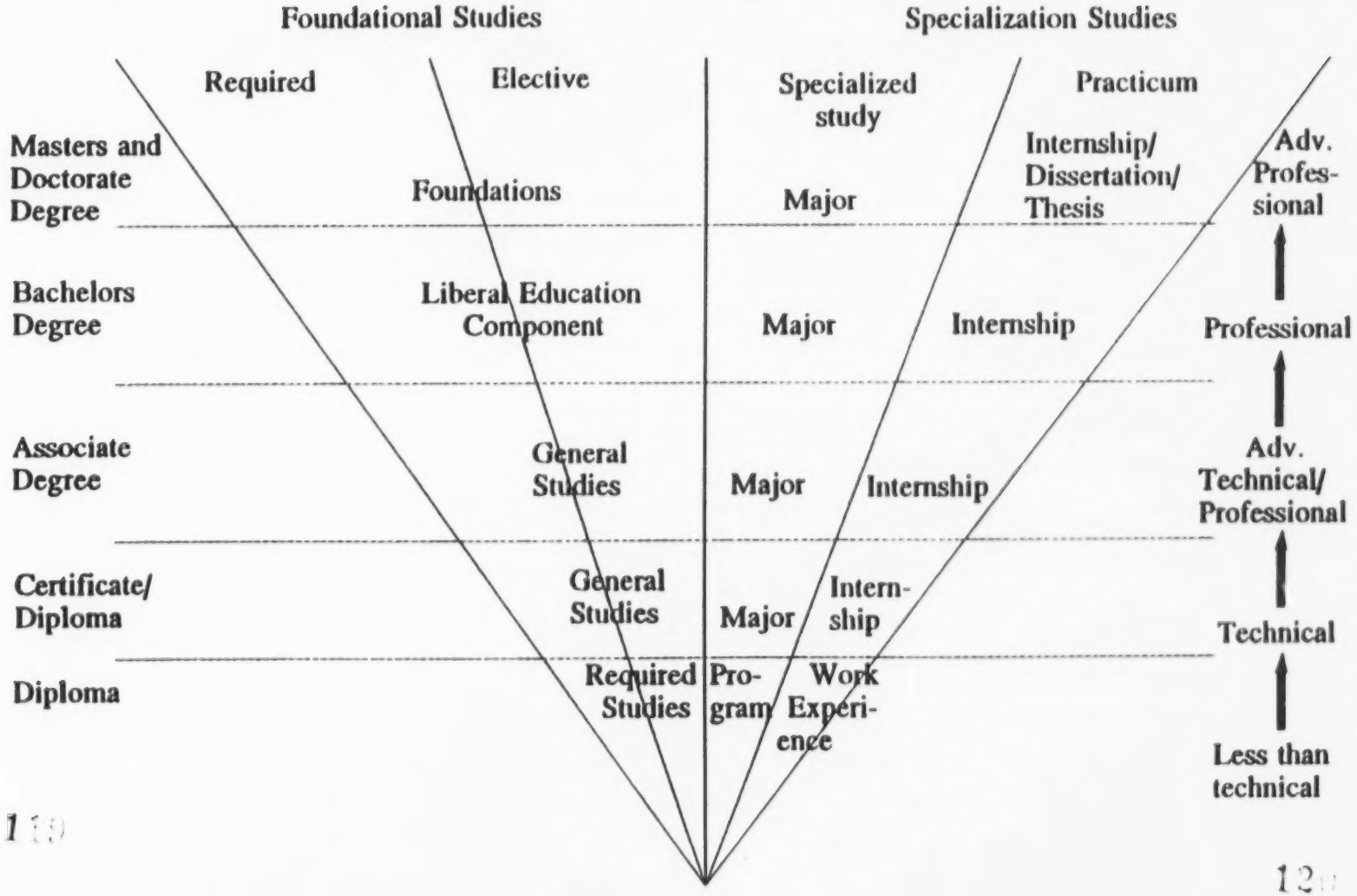


Figure 11
Place of Specific Skill Problems in the Organization of the Subject Matter of Vocational Education

Option #1

Understanding Problems	Rights and Responsibilities Problems	Relationships Problems	General Competence Problems	Specific Competence Problems

Option #2

Option #3

?

must be integrated with and reinforce other learning that is occurring at the same time. However, in the process of articulation and integration (reinforcement), care must be taken to ensure the integrity of vocational education as a unique area of study (as well as the integrity of other areas of study). At all times, the structure must ensure that vocational education is part of the mainstream of education and not a dumping ground for special groups of students or merely narrow, technical training.

In the end, the proposed framework for the subject matter for vocational education involves two major transformations in current educational policy and practice. As shown in Figure 12, the first is to form an enhanced general or common education that encompasses vocational education as an indispensable component in interaction with other components of the curriculum. The second transformation is to enhance the content of vocational education itself to explicitly focus on problem areas in addition to specific skills. These transformations are viewed as complementary and responsive to the changing nature of work and family life.

Continuing the Conversation about Subject Matter

The perspective proposed in this report to guide the focus, development, and organization of the subject matter of vocational education is presented with the hope of encouraging further conversation and debate in the field. To assist in that process, a series of questions and suggested activities is provided that can serve to stimulate and clarify the proposed framework for the subject matter of vocational education.

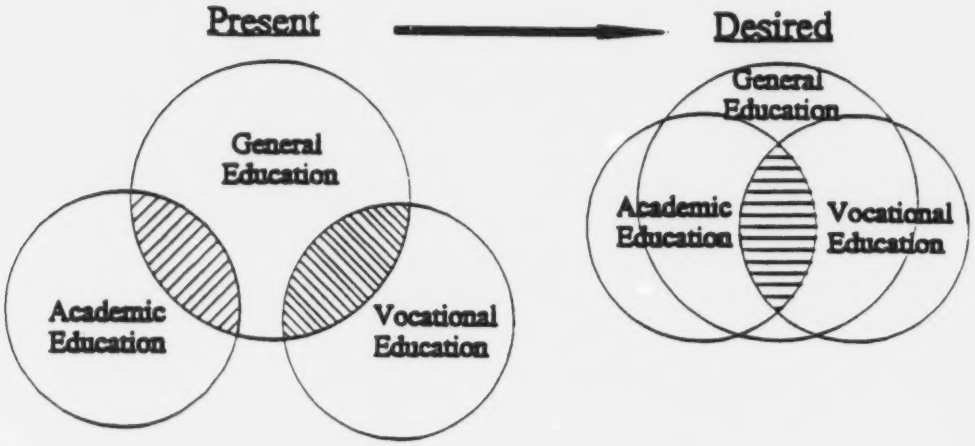
Questions

- *What should the relative importance of work and family responsibilities be and what problem areas should be addressed by vocational education?*

  This question can be posed more directly by asking what percentage of the total teaching time devoted to vocational education should address family versus work responsibilities. Within each area of vocational responsibility, what percentage of time should be devoted to each problem area (i.e., rights and responsibilities, relationships, specific skills)? The question of the relative importance of work and family responsibilities could be visualized as a pie chart (see Figure 13). On the other hand, the relative importance of the problem areas within, for example, the work area could be visualized as a bar graph (see Figure 14).

Figure 12
Proposed Transformations in the Subject Matter of Education, More Particularly Vocational Education

1. Enriched view of general education for all students



2. Enriched view of subject matter of vocational education

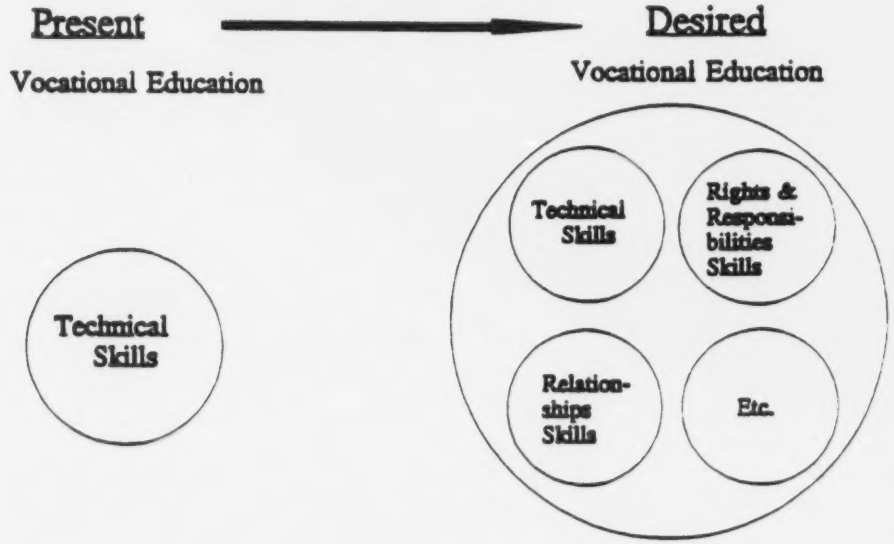


Figure 13

Relative Importance of Family Versus Work Responsibilities in the Subject Matter of Vocational Education

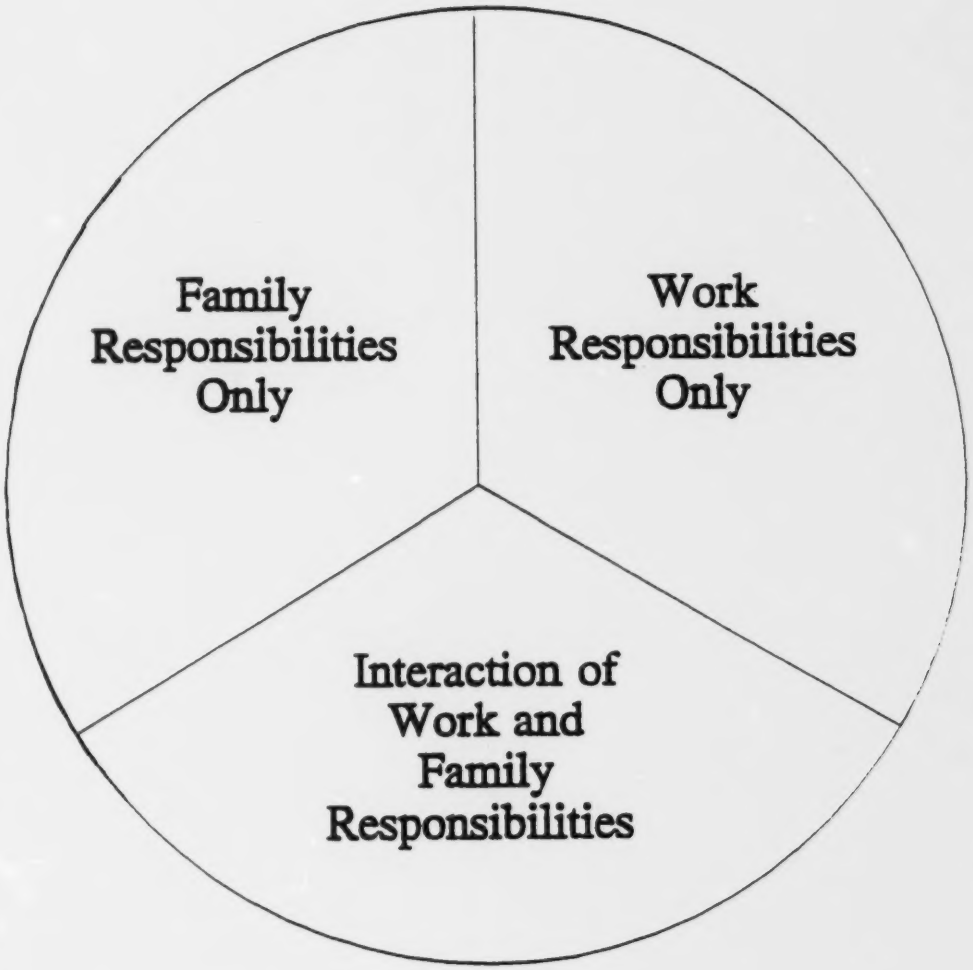
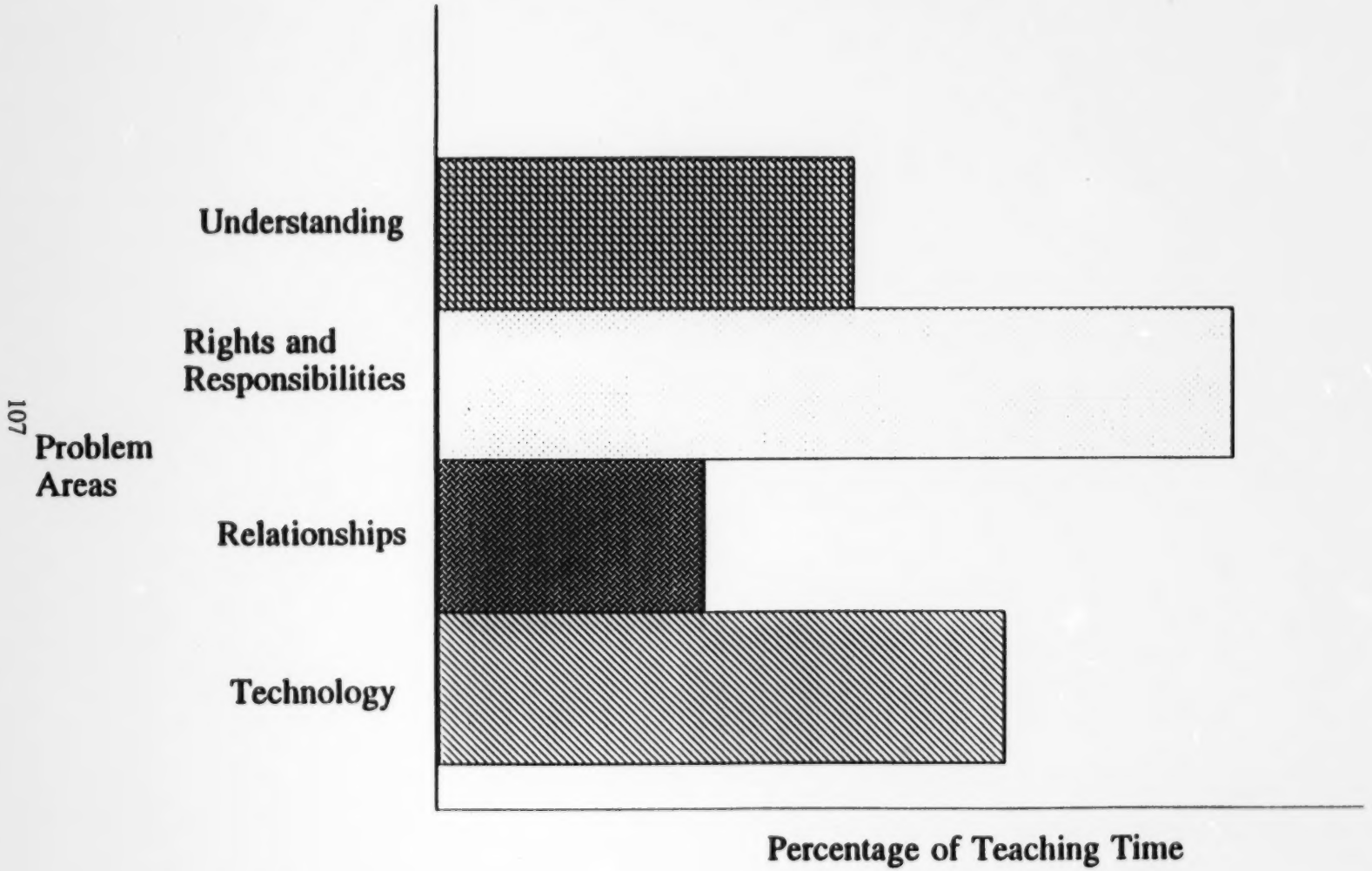


Figure 14

Relative Importance of Problem Areas Within Work Responsibilities in the Subject Matter of Vocational Education



- *What should the relationship be between work and family responsibilities and the supporting content?*

  Work and family responsibilities could be thought of as relating in very different ways (see Figure 15). Work and family responsibilities could be conceptualized as separate areas of responsibility that bump up against each other in life (i.e., career plans and marriage plans), or work and family responsibilities could be thought of as overlapping, with some common responsibilities and supporting content (i.e., responsibilities in family owned business, leadership and team work). As another alternative, the responsibilities and supporting content could be viewed more generally and as almost completely overlapping (i.e., relationships, rights and responsibilities, technology). Which of these conceptions of the relationship of work and family responsibilities best serves the interests of the student of vocational education? What are the advantages and disadvantages of each perspective? What other options should be considered? Why?

- *What should the relationship be between skills specific to particular work or family roles and more general skills in vocational education?*

  The central issue in this question is the place of specific skills in the organization and teaching of the subject matter of vocational education. Are general skills best taught in the context of specific skills, or can they be effectively taught independently of specific skills? Visually, the issue might be presented as shown in Figure 16.

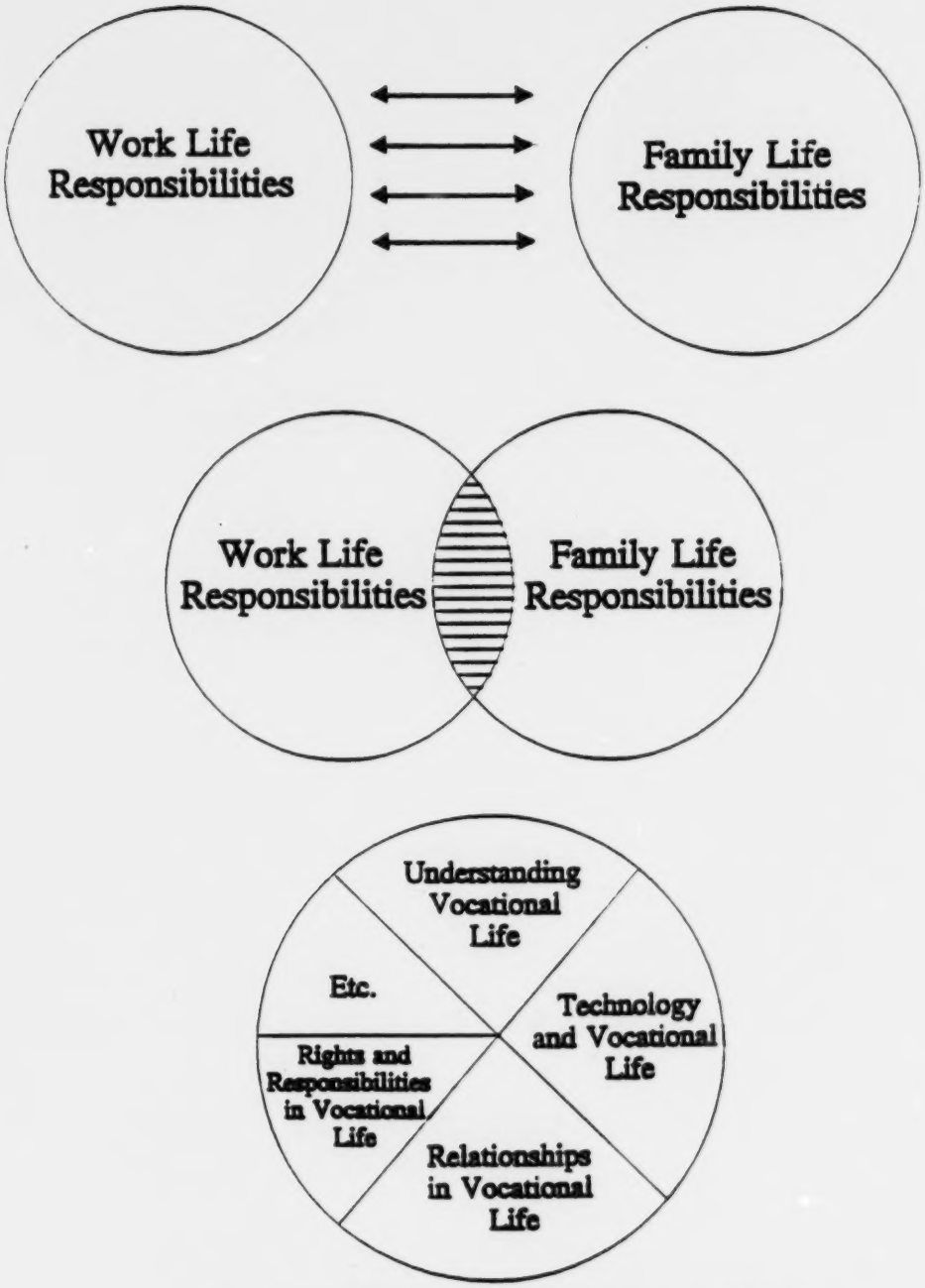
- *What should the relationships be among the content of vocational education supporting each problem area?*

  It is very likely that the content needed to resolve problems in each problem area (and between problem areas) is not entirely independent. That is, as one backs into the disciplines, similar theories and practices may be used for different problems. How should this duplication be dealt with? Should there be some basic or foundational learning experiences that underlie and are prerequisite to more specialized study? Again the issue might be visualized as complex networks or constellations of problems and supporting content, as shown in Figure 17.

Figure 15

Relation of Work and Family Life Responsibilities

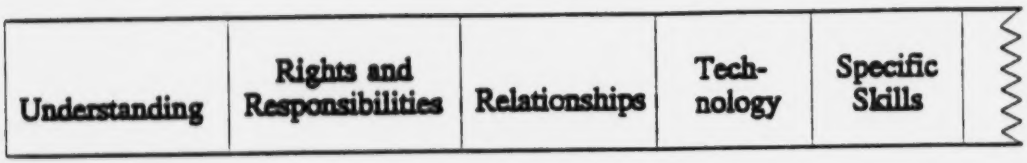
(Vocational Aspects of Life)



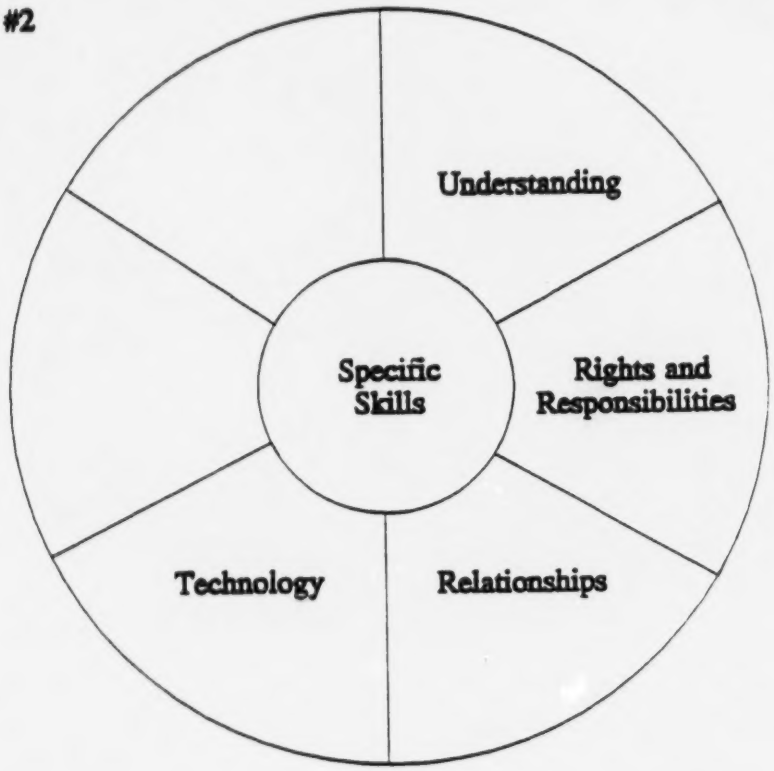
Work and Family Life Responsibilities

Figure 16
Relationship of Specific Skills to More General Skills in the Subject Matter of Vocational Education

Option #1



Option #2



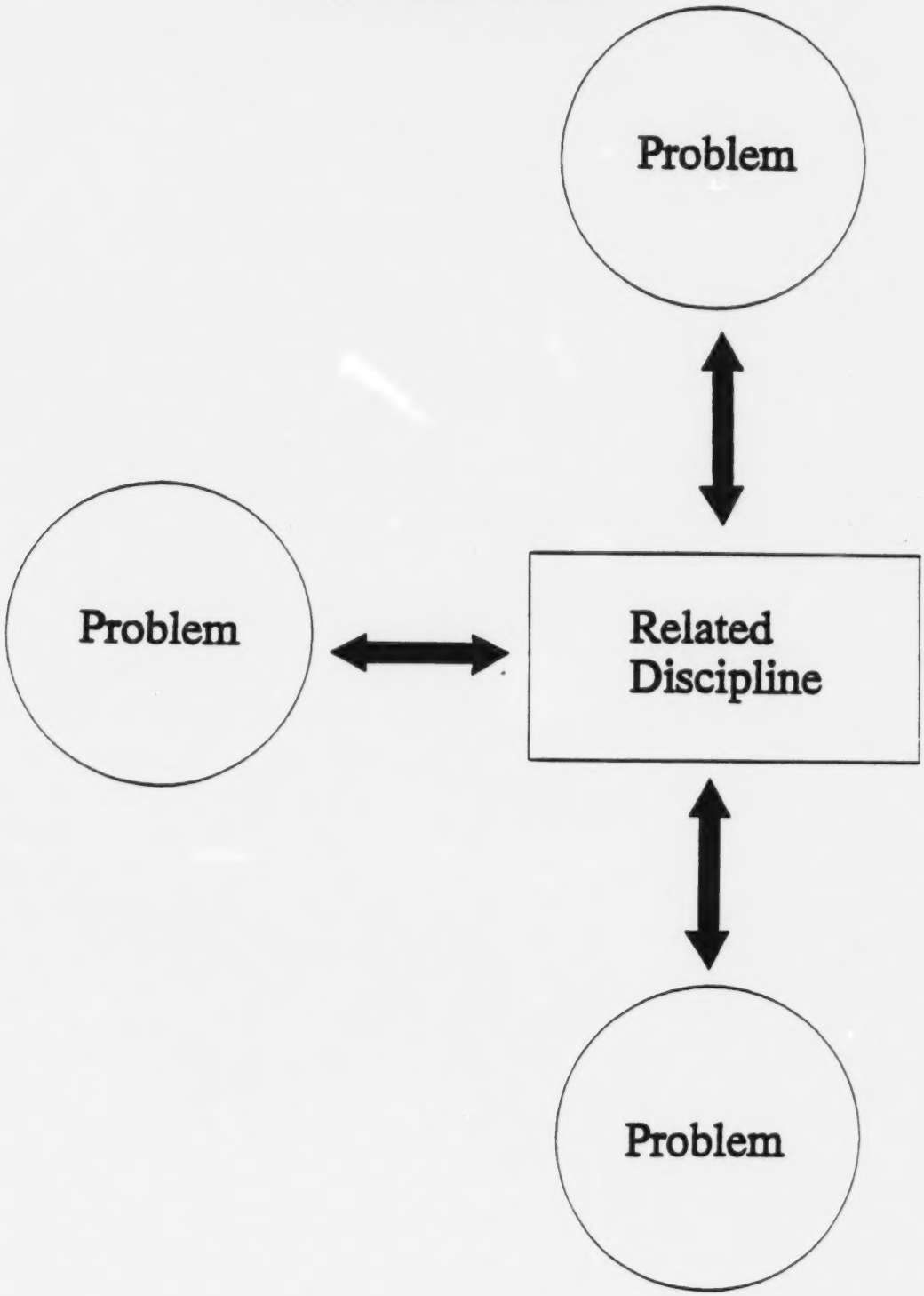
Option #3

?

Figure 17

Relationship of Subject Matter of Vocational Education

Between Vocational Problems



- *What problems should be selected to be addressed with each problem area?*
  A multitude of problems can be selected for attention within each problem area of vocational education. Selection criteria might include (1) importance to students; (2) teacher's expertise; (3) support of disciplines that are backed into in teaching about problems; and (4) relation to problems already addressed. What is the more complete set of criteria that should be brought to bear, and what is the supporting rationale for these criteria? This issue might be visualized as in Figure 18.

- *Since the problems of vocational life are often continuing or perennial, what should be the relationship of the subject matter of vocational education available at different times in the life span?*
  The point has already been made that the problem areas and problems of work and family life are continuing or perennial. How should this be handled in terms of the subject matter of vocational education—what should be taught when and how should it relate to what has come before and should come after in terms of learning. One perspective would be to view the problem areas and problems as an upward spiral. That is, attention to learning related to a particular problem returns to the problem from time to time as individuals develop and their contexts change. Further, each time individuals return to a problem, they approach it at a higher level based on previous learning and experience. This view of the relation of attention to the same type of problem over time is visualized in Figure 19. What are the implications of this perspective for the subject matter of vocational education and its organization; for different delivery systems and settings for vocational education? What other perspectives of the relationship of attention to similar problems over time should be considered?

- *Are there other areas of life that should be addressed by vocational education beyond work and family life roles and responsibilities?*
  In this report, work and family life have been the primary focus of vocational education. Should other areas of life (i.e., social, political, leisure, spiritual) be considered vocational and, therefore, appropriate subject matter for vocational education? Resolving this question soon leads to questions about what is *not* vocational education. Further, even the meaning of work and family are problematic with the changing nature of how goods and services are defined, produced, and distributed at work and how relationships between people are conceived in changing concepts of family.

Figure 18

Selecting Problems to be Given Attention Within Each Problem Area in the Subject Matter of Vocational Education

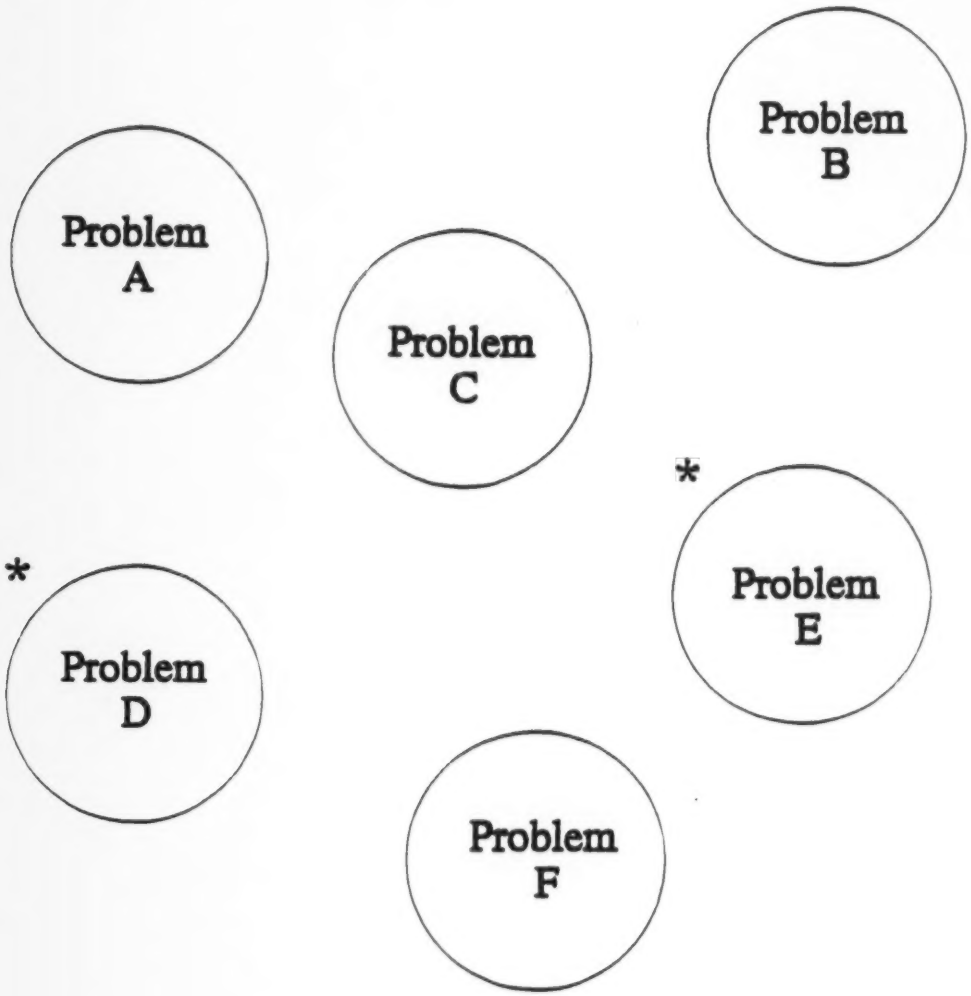
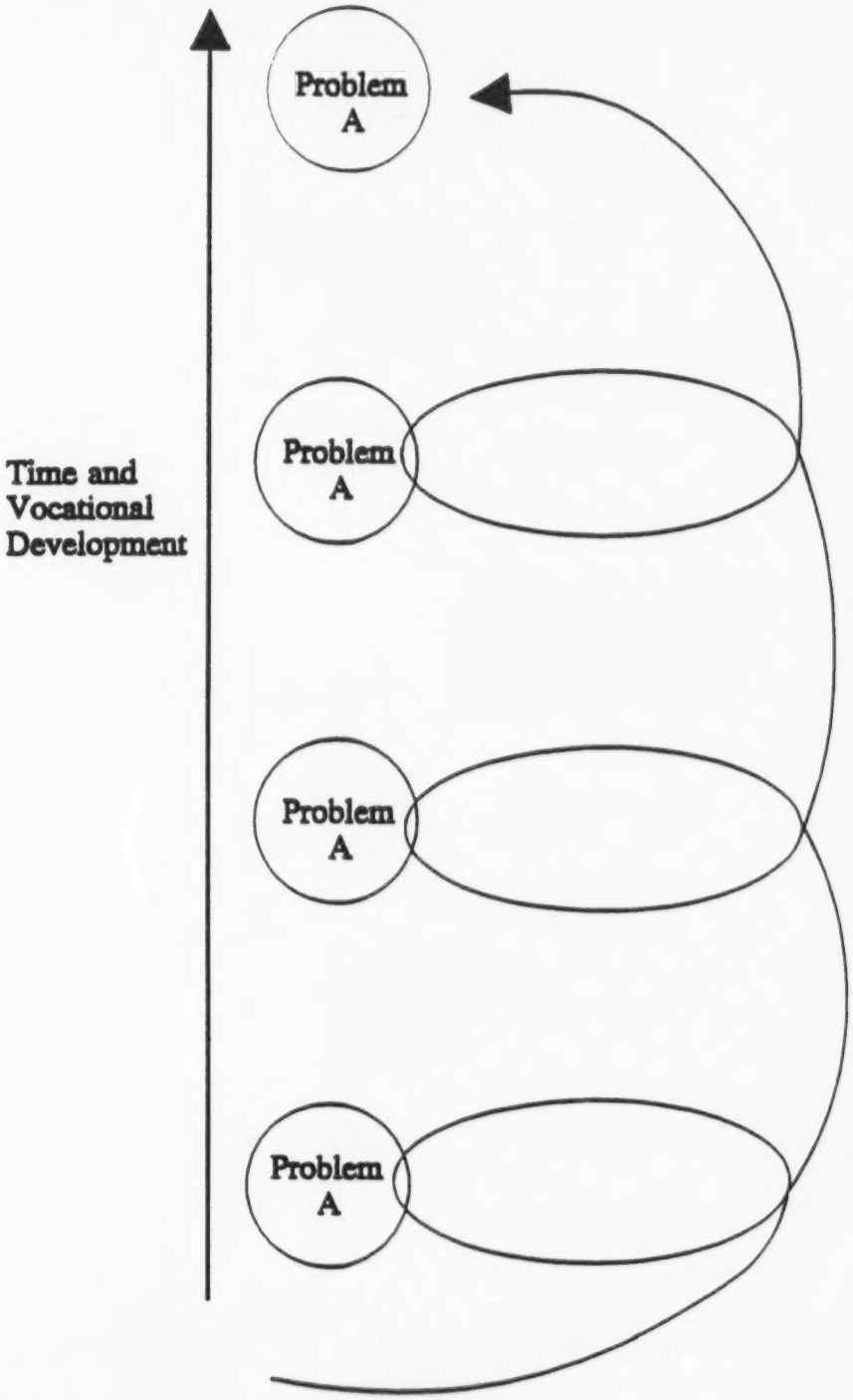


Figure 19

Relation of Attention by Individual (and Therefore Vocational Education) to Similar Problems Over the Life-Span



Activities

Several activities would be very productive in examining the consequences of the proposed framework for the subject matter of vocational education and envisioning it in more concrete form. First, much more work needs to be done to identify and classify the problems encountered in work and family responsibilities in contrasting the desired state of affairs with the present state of affairs. Problems need to be identified and analyzed for different age groups, socioeconomic status, geographic areas, sexes, and cultural settings. Good interpretive work in clarifying and describing problems from the perspective of individuals who are encountering them needs to be combined with successful means of resolution. This should be followed by critical work examining the appropriateness of the social, economic, and political assumptions and structure underlying the problem, the norms that should come into play in resolving problems, and the ways of empowering individuals to make needed changes.

A second activity would involve pilot testing the framework for subject matter in actual school settings. This activity would assist in seeing the curricular, instructional, and assessment implication of the proposed framework in concrete form. Here it will be important to consider the basis for selecting feasible sites, conducting the necessary training, guiding implementation, and thoroughly assessing consequences. Pilot testing on a limited basis for short intervals of time in ongoing courses, which is the next phase planned for this project, should be followed by larger scale testing that could involve whole schools for long periods of time.

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